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ABSTRACT

Providing a history of the development and evaluation, this report discusses one set of training materials designed to increase knowledge and understanding of school personnel in the area of instructional planning and management. The unit goal is to assist school staff in making defensible choices in form and content of instructional programs by providing experience in the process of, and tools to assist in an analysis of, basic learning assumptions, the matching of program characteristics with outcomes, a consideration of resources available, and the analysis of existing programs. The materials are presented in five modules: chalk talk, analyzing basic assumptions, matching programs with goals, assessing resources and constraints, and selecting curricula. Results of external evaluation are attached. Field testing and evaluative materials are appended. (Author/DW)

FOREWORD

This report is intended to provide a history of the development and evaluation of one of the products produced by the Educational Management Program. Reference is made in the body of the report to more detailed reports or memoranda which document the development and testing procedures used. Some of the more crucial documents relevant to product effectiveness are presented in their entirety as attachments to the report.

The report has been prepared for two kinds of readers. The first are those associated with the National Institute of Education, and possibly some potential users of the product, who need to make judgments about product quality but don't have the time to become familiar with all the details of the separate reports on the development and testing. For this group, the conclusions drawn from the various evaluation studies are excerpted in the body of the report. These excerpts may be considered to represent the claims for the product that the Program Staff believe to be justified. If readers are willing to base their judgments about the product on the authority and professional independence of those drawing the conclusions reported then the body of the report is sufficient.

The second group of readers for whom the report is prepared is composed of the staff of NIE and the Laboratory, and professional colleagues who wish to know in more detail about the quality of the evaluation information collection and analysis on which the conclusions are based. The attachments to the report are presented to meet the needs of this group.

Richard W. Watkins
Program Director
Educational Management Program

The Development and Evaluation of
Designing Instructional Programs

Designing Instructional Programs is one of six sets of training materials developed to increase the skill, knowledge and understanding of school personnel in the area of instructional planning and management. Instructional planning is defined generally as that area of educational administration that is concerned with providing educational opportunities for children. This area may be further defined as involving the establishment of instructional program purposes, the design and implementation of programs, and the evaluation of instructional programs. The materials in Designing Instructional Purposes is directed to the second of these three functions.

Intended Users

These materials are designed for those school personnel who are directly concerned with the design or selection of school curricula (instructional programs) to be implemented in classrooms. The specific role titles of such staff will vary from district to district, but most often will include building principals, department heads, district curriculum specialists, and teachers who are serving on curriculum committees. Depending on the size and organization of a school district or system, Designing Instructional Programs may also be found useful by district office administrators other than those with direct curriculum responsibilities, Board of Education members, parents and students. It should be clear that the intended user group can best be defined by function rather than by a particular role or title, and that the group could include staff not necessarily falling under the heading of administrators.

Product Purposes and Description

The goal of this unit is to assist in the preparation of school staff in making defensible choices regarding the form and content of instructional programs. The general objectives of the unit are to provide experiences in the process of, and tools to assist, in (a) an analysis of basic assumptions about students and learning, (b) the matching of program characteristics with intended learning outcomes, (c) a consideration of the resources available for and the constraints imposed on program design, and (d) the analysis of existing programs that might be useful.

The materials are presented in five modules which might each usually require three to three and a half hours. The modules are:

1. Chalk Talk, which is an educational game played by three teams of three or four people. Each team goes through the step by step process of designing an instructional program for a subject area and grade level chosen by the team. Design decisions are made at a number of critical choice points and must be defended if challenged by members of another team. A glossary is provided so that all participants will be able to use terms with the same meaning; the glossary is also useful in later modules. There is a scoring system for the game, so that a team may "win," but the real purpose of the game is to introduce the participants to the total design process, and to stimulate interest in the subsequent modules.
2. Analyzing Basic Assumptions, in which participants and teams identify the assumptions that underly their instructional planning, justify their assumptions to members of other teams, and reach a team consensus on the assumptions to be used in planning an instructional program. Four parables representing different models of instruction are used to enable participants to clarify their own assumptions in six major areas. The purposes of the module are to (a) provide an organizing

framework to consider and analyze their feelings and assumptions about what and how people should learn, and (b) provide a vehicle through which they can arrive at a consensus on assumptions that will permit effective group planning of an instructional program.

3. Matching Programs With Goals, in which the planning teams analyze and organize the goals and objectives to be met by an instructional program, and make judgments about the program characteristics appropriate for meeting these goals and objectives. In effect, the module provides practice using two kinds of planning tools that can be useful in application to real instructional planning tasks on the job. One of these tools enables users to organize goals and objectives stated with different amounts of specificity into a set that provides a useful base for instructional planning. The second tool enables the team to make program design choices that are consistent with the program objectives.

4. Assessing Resources and Constraints, in which the participants work through a set of simulated instructional planning problems focused on the task of estimating program costs, considering possible cost trade-offs, and considering staff and community resources and constraints that could affect the success or failure of a program. This is done by providing exercises in (a) the use of forms and cost estimation parameters to obtain approximations of staff, materials and facilities costs for a given program; (b) the rating of feasibility of cost trade-offs among these; and (c) the identification of non-cost restraints and resources.

5. Selecting Curricula, in which participants are prepared for and have practice in the use of an instructional planning tool for analyzing

and comparing different curricula that might be adopted or adapted to meet program objectives. The "Curriculum Analyzer" in this module can be used for assessing the strengths and weaknesses of actual curricula that schools might consider, and this module in effect provides group practice in its use to compare two existing instructional programs in reading.

Product Development and Testing

General specifications for the unit Designing Instructional Programs were first set forth in 1970 (Banathy and Jenks). These specifications were derived from the design of an overall system for increasing the instructional management capabilities of school staff. The system itself had been designed in response to a detailed analysis of existing needs of school staff, and envisioned the development of several training and specific application units, as well as the development of planning and management tools for use in the day to day world of school staffs.

In May 1971 a much more detailed set of specifications were prepared as a starting point for the unit (Jenks, 1971). Six major objectives and related behavioral objectives were defined, and a detailed analysis of the program design process completed. A first statement of the tasks to be covered in the training unit was outlined so that the interrelation of objectives, learning environments, curricular information, resources, and constraints could be appreciated and used in making program design judgments.

As work progressed on the development of the training unit, staff review, and tryout of drafts of some of the developed material, several conclusions were reached that led to rather important design changes (Otto, January 1973). Among these were: (a) the complexity of the program design process made it necessary to present an overview of the entire process before undertaking training in specific steps of the process, (b) a strictly verbal-graphics approach to this overview presentation would have been too long to accomplish within the reasonable time limitations set for the unit, and (c) the original design would have put too much stress on comparison and choice among existing alternatives rather than on the design of new programs or the creative adaptation of existing programs to meet particular student and school needs.

As a result of these considerations, the unit objectives were redefined to some extent, and the decision made to provide the overview using an educational game that would also stimulate interest in the unit, provide an organizing framework for the rest of the unit, and set the stage for the curriculum committee approach to instructional planning that seemed most realistic. At the same time, it was decided to undertake the development of a device for actually analyzing existing curricula in a way that would be consistent with the principles underlying the unit, rather than discussing how curricula should be analyzed.

Attention focused on the development and testing of these two modules that represented a radical departure from previous Laboratory development efforts.

Two feasibility tests of the game were conducted, one using a number of Laboratory staff members as participants and one using graduate students in Educational Administration at San Francisco State University. The game was extensively revised after each of these tests, and several versions produced, which were tested comparatively, again at San Francisco State University (Otto, April 1973).

The entire unit as originally planned, consisting of four modules, was tested during one week of a graduate course at San Francisco State University in the summer of 1973. Twenty-seven students who were practicing school administrators or teachers, completed the unit in four two-and-a-half-hour sessions.

The time for use of the unit (ten hours) which was designed for fifteen to eighteen hours, precluded the collection of cognitive or behavioral data. The affective data collected may be generally described as neutral to negative, although the respondents were positive about many features of the unit. Many of the negative responses appeared to result from the conditions under which the unit was tested, rather than from characteristics of the unit itself. The test of the unit did provide information of value in planning specific revisions to the unit. A complete report on this field test is included as Attachment 1.

As a result of this field test, the unit was extensively revised, including the incorporation of the "Curriculum Analyzer" as a fifth module. As these revisions were nearing completion, arrangements were made for an external evaluation consultant to prepare an evaluation plan and instruments for final field testing of the unit. The revised version of the unit was given a preliminary test in May as inservice training for nine elementary school principals and an assistant superintendent from a single school system. This training session was also used to pretest the evaluation instruments. Following some further revision of the unit, it was tested in five situations (two univeristy classes, three inservice training situations) in which 77 administrators participated and completed the evaluation forms. The school districts cooperating in these field tests are listed on page 11.

The external evaluation consultant collected and analyzed data from all of these test situations. His complete report is included as Attachment 2. The following quotations from the report (Temp) rearranged from the original context, present the conclusions with respect to cognitive outcomes:

"The three important abilities assessed were:

- the ability to select curriculum comparison categories of importance
- the ability to specify appropriate classroom procedures to

accomplish a given set of behavioral objectives

- the ability to compute rough cost analyses of a proposed program given a set of district guidelines and cost figures."

The conclusions of the study with respect to each of these areas were:

"A practically significant expansion of the ability of the participants to select curriculum comparison categories of importance was achieved. The group that prior to training would have been content with comparisons on two to five dimensions was, after training, indicating that up to 17 comparison dimensions were essential to doing an expert job." (p. 13)

"A more realistic and wider set of classroom procedures and conditions were suggested by the participants after exposure to the materials and experiences of the training unit. Some significant improvement in the ability of these experienced educators to specify appropriate classroom procedures was found." (p. 16)

"Many more of the participants understood the logic of a cost analysis form and were able to compute rough cost analyses after training than before. A practically significant increase in the ability of participants to do such analyses of a proposed instructional program was apparent." (p. 18)

The objectives defined for the unit as tested also included recall of certain vocabulary and curriculum specific items. The evaluation specialist judged these to be "lower-level knowledge outcomes" but did collect information relevant to them. He reported the following conclusion:

"The results indicate that if the unit developers do want to accomplish knowledge/recall objectives (some of which are stated in the materials), they will have to adopt a different and perhaps more traditional memorization and study for examination type teaching strategy. This is not compatible with the developers more over-riding objectives of achieving application type skills in the short training period provided, and is not recommended by the evaluator." (p. 19)

The final recommendation made by the evaluation consultant was that:

"This unit should be made available in a distribution version for use in college and school district settings where teachers and other school personnel are in training for curriculum design responsibilities."

In addition to this systematic testing of the unit, two other evaluation efforts were undertaken. For the first, Dr. T. Bently Edwards, Professor Emeritus, School of Education, University of California at Berkeley, agreed to observe one of the five field tests referred to above, and to report his judgments about the process, the unit, and anything else he thought appropriate to note. He had not seen any of the materials prior to the class, and so far as is known had never had any discussions of the unit with those who had developed it.

Dr. Edwards' report is included as Attachment 3. It is essentially an observational narrative which does not lend itself to simple summarization. The following quotation from the introductory paragraphs (Edwards) does provide a general indication of his overall judgment:

> "All of the members of the class are mature educators, holding enlightened opinions about educational issues... With these students, the materials were highly successful. That is to say, they generated the course content, stimulated clarifying discussions, and seemed to include sufficient novelty for this group of students... To quote one of the men, 'I can now adopt a fresh point of view in working with my school board on curriculum revisions.'"

As a second supplementary evaluation effort, Dr. James Olivero, Director of the Nueva Day School and Learning Center in Hillsborough, California was asked to review the entire unit as prepared for the main field test described above. Dr. Olivero was chosen for this review because he is an experienced school administrator who has also developed and published administrator training material, and who very frequently conducts administrator training workshops as a consultant to school districts or professional organizations.

Dr. Olivero's review contained many suggestions for revision, as well as overall judgments of the unit and each module. His written report is included as Attachment 4. When this review was arranged, specific questions were posed for the reviewer, and are given in Attachment 4. The quotations below are from the answers to the questions, but are arranged (with omissions indicated) to provide a brief overall summary of judgments about the unit.

> "The goals and objectives definitely address an important need for school people as well as members of the community who are more and more being called upon to participate in educational decision making. One of the reasons I believe the package is good is that I am not familiar with anything else as complete as the materials

> which have [been] developed. Certainly, there are two arguments related to this point: (1) The package may contain more about some aspects than people want to know, and on the other hand, (2) people need to be willing to invest some time in learning how to do a job correctly when the fiscal and human stakes are so high... There is no question in my mind that an individual willing to invest at least some small time and thought (20 hours, I guess!) could achieve the objectives as stated in the materials... If I absolutely had to prioritize the list of modules, I would first keep the fifth module and "Curriculum Analyzer." Then I would keep Module II. Next would come Module III, then IV, and last would be Module I, the game. Perhaps I would feel more positive about the game if I were to participate in playing it. Others have told me it is fun. From a sales point of view, it might offer just the right gimmick (using the term loosely) to help make the package "go"... I do believe the price tag you have to put on the package is reasonable. If a school district is going to make the kinds of serious decisions called for, they should expect to invest initial money into people and materials ... I definitely would recommend use of the materials and would use them myself if they were available. As I have indicated earlier, I have a few different ways to do the "assumptions" package and believe the personal values and institutional values tools I use are more powerful than the approach taken in Module II, but this probably is my own bias. In any case, I certainly agree that the analysis of the philosophy of the school must be the first step, and there are many ways to do this... The only other materials and procedures I would use, as an alternative to what has been put together, are those I have developed myself; unfortunately, because I have never packaged the materials, they are usually put into and taken out of a workshop depending upon many factors that are not related to very much of anything, except me. Some of the arguments for both choices are obvious. Undoubtedly, the program is well done...get it out to the people who can use it."

Conclusion

When the main field test and reviews of the Designing Instructional Programs were completed, some additional minor revisions were made, the Coordinator's Manual was completed, and the text and materials were prepared for final production. All of the revisions were based on staff experience in the field tests and/or the recommendations of the external evaluation consultant, the reviewers, and those who had served as coordinators or participants. They can be quite accurately described as "field-based" revisions.

The various kinds of evaluation information available indicated that the unit was clearly sufficiently effective to merit publication and dissemination. The decision was made that the Laboratory should produce and sell it on an interim basis, pending possible interest to publish from a commercial distributor. Laboratory funds available for such publications are severly limited, so that the final version has had to be "stripped down" as much as possible consistent with judged effectiveness. No substantive changes were made to reduce costs; quite simply, the physical appearance of the unit will not be as attractive as would be desirable.

The unit is available for purchase from the Laboratory at a cost of $135.00 for all the Coordinator's materials, and sufficient copies for ten participants.

The colleges and school districts listed below participated in one or more tests of the unit Designing Instructional Programs.

Department of Educational Administration, San Francisco State University
Archdiocese of San Francisco School System
Eureka, California City Schools
Livermore Valley, California Unified School District
Upland, California Elementary School District

Bibliography

Banathy, B.H. and Jenks, C.L. "Conceptualization and Plans-Instructional Planning and Management System" Berkeley, Ca: Far West Laboratory for Educational Research and Development, October 1970.

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Jenks, C.L. "Designing the Instructional Program or Analyzing Curriculum Alternatives" Unpublished Staff Paper, August 1971.

Olivero, J.L. "Program Review 'Designing Instructional Programs'" Unpublished Report, September 1974.

Otto, J.G. "Reconceptualization Guidelines for Designing Instructional Programs Training Unit" Staff Memorandum, January 1973.

Otto, J.G. "DIP Training Unit Review of Instructional Design Game" Staff Memorandum, April 1973.

Temp, G.E. "Evaluation Report on the Training Unit Designing Instructional Programs" Unpublished Report, October 1974.

Attachment 1

Preliminary-Main Field Test

The preliminary-main field test results were included in a Progress Report in the Unit submitted to the National Institute of Education in September 1973. The following pages are reproductions of the parts of the Progress Report that dealt explicitly with the field test results.

III. PRELIMINARY MAIN FIELD TEST

A. Procedures

During each class session at CSUSF, three members of the training unit development team and an evaluator were present to coordinate training and collect transactional data. One development team member acted as chief coordinator for the entire unit. Since there were but ten hours over a period of four class meetings to administer ten hours of training, the pre-posttest (subsequently cancelled), and affective questionnaires, periodic corrective action was required to compensate for time constraints and unanticipated events. As was stated above, some resequencing of materials had been done to ease the time constraints prevalent at this site. Such mechanical adjustments, however, did not allow control of other site characteristics which prevented the collection of cognitive performance data and profoundly influenced the affective data collected at this site.

B. Training Characteristics

During the training sessions at this site each participant played the role of a member of an instructional planning team, performing individually and in groups to: (1) design an instructional program for a chosen subject area and grade level, (2) analyze basic assumptions about learning for consistency with chosen instructional methods and techniques, (3) match various types of goal statements for appropriateness with a variety of instructional methods and techniques, and (4) judge for feasibility an instructional program given examples of three types of resources and constraints. In addition, participants were asked to complete a number of take-home exercises that required them to: (a) design a preferred instructional program consistent with their own individual basic assumptions about learning, (b) analyze for possible adoption two given curricula with the aid of a curriculum analysis tool, and (c) assess for feasibility an instructional program given information on a curriculum, and temporal and financial resources and constraints that might benefit or impair the implementation of the program.

C. Site Characteristics

The alternate test site at California State University, San Francisco, consisted of a class in Curriculum and Instruction composed of 27 graduate students working inservice and enrolled in an M.A. program in Educational Administration. Plans called for the instructor in charge of the class to provide Program staff with four sessions of two hours and thirty minutes each, over a period of two weeks, to administer training and testing. Since this was an alternate site that was planned in the event that the primary site at Holy Names was not used, the ten hours allotted for field testing was anticipated as being insufficient. However, because of the difficulty involved in obtaining a more favorable field test site during the summer months, because of the need of staff to gather as much data on the training unit as possible, plus the requirement of meeting Program work unit milestones, it was decided to proceed with testing at CSUSF.

Nearly two-thirds of the field test sample consisted of teachers at the secondary school level. Also represented were Principals, a School Psychologist, District Office Personnel, a Director of a Teacher Center and a Curriculum Specialist. Such an occupationally diverse group was seen by Program staff as a fair representative sample of eventual users of the training unit.

Three of the participants had had previous experience with Far West Laboratory and Educational Management Program products which, to these few, made less intrusive the appearance of Program staff and the training unit. Moreover, all of the test subjects were acquainted with each other which made easier the performance of team training activities.

Negative site characteristics stemmed largely from the lack of time allowed to administer all portions of the training unit, its pre-posttest, and affective questionnaires. Participants were unable to complete the pretest before beginning the first training modules, which caused overly negative data to be gathered on Module One. Regular class assignments given participants to complete at home by the instructor, in addition to take-home exercises accompanying the training unit, prevented proper time and attention being given the training materials assigned as homework. In addition, on the final day of field testing, which was the final day of the course in curriculum and instruction, the course instructor resumed control of the class after 1 1/2 hours to discuss work accomplished in the course. This prevented the posttest from being administered.

In general, participants at the test site seemed disenchanted with the tasks that they were performing. There was dissatisfaction heard about the M.A. program in which they were enrolled. Laboratory staff and the training unit were said by some participants to have been used for displacing anger and frustration. Despite these negative characteristics, however, Program staff received a total of nine unsolicited requests for the training unit for use in inservice settings. Moreover, two participants requested that staff consider their school sites for future testing of the training unit.

D. Data Summary and Interpretation

Data analyses were simple since no cognitive or performance data were collected. For each item on the affective questionnaires[4] statistics were computed on a seven-point scale for mean, standard deviation, and standard error of the mean.

The standard of acceptability was set at two standard errors of the mean above "4," the midpoint of the scale of favorability. Thus it was required that each item be statistically significant beyond the midpoint of the scale. If the item mean exceeded this standard, then the results were considered acceptable. If not, the result was unacceptable for that to which the item pertained.[5]

Because of the adverse characteristics of the CSUSF test site much of the data gathered on each portion of the training unit was negative. Interpretations of these data are therefore made in light of the site characteristics that could most likely have caused negative responses. Where negative responses were directly addressed to content, method, and execution of the training, suggestions for revising and improving these are made.

Two hours were allowed for completing Module One of the training, a game in which teams of players perform tasks in instructional program design. Because the pretest, which requires participants to work entirely alone, was administered just prior to this activity the transition between the two entirely different tasks was judged by participants difficult to make. In addition, the limited amount of time available for completing the pretest caused frustration and ill-feeling among some participants; although the game was played with alacrity, this ill-feeling was manifested in affective data gathered.[6] As a result, only five of twelve items for Module One met the standard of affective acceptability.

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[4] Copies of affective questionnaires showing item means, and whether each item passed its standard of acceptability, are found in the Appendix, pp. A-7 to A-33.

[5] Affective results for each module are displayed in the Appendix, pp. A-34 to A-36.

On Module Two, a written training activity that requires participants to analyze the basic assumptions about learning made by themselves and others, twelve of fifteen affective items met the standard of acceptability. Negative written comments dealing with clarity of feedback responses were mentioned on some questionnaires. However, because of the relatively abstract content of the module, and the fact that it contains much simulated material which is open to individual interpretation, it is possible for confusion to result on the part of some.[7] Future revisions of this module will be directed at clarifying feedback, and lessening the possibility for confused interpretation by providing diagnostic exercises for participants to use to perform some of the analysis exercises with their own input information.

On Module Three, a written activity requiring individual and team decision making in matching instructional programs with goals, nine of thirteen affective items achieved the standard of acceptability. Responses addressed to methodology and execution of the training material were all favorable. Those items that failed to meet the standard referred to clarity of feedback and the amount of writing required, which was judged excessive.[8] Much of the training in this module deals with clarifying the rationale used for matching instructional programs appropriately with different types of instructional goals. Therefore more writing is required than in accompanying modules. To lessen the amount of writing, as suggested by participant responses, checklists will be provided to accomplish the same purpose as the writing exercises. Further revisions will also be directed at clarifying feedback responses.

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[6] See Appendix, p. A-37, for written and verbal comments on this module.

[7] See Appendix, p. A-38, for comments of participants.

[8] See comments in Appendix, p. A-39

On Module Four, a written activity requiring participants to assess resources and constraints that can affect the feasibility of instructional programs, only six of sixteen affective items met the standard for acceptability. Because of time constraints, this training module was administered in truncated form with only the latter half completed by participants in class. Its first half, assigned as homework, was assigned at the same time that participants were required by the regular course instructor to complete a take-home final examination for their course grade. As a result, few participants completed the first portion in which many assessment exercises were necessary for adequately completing the second part. The fact that its conceptual continuity was disintegrated partially accounts for much of the negative data on this module.[9] Nevertheless, other comments referring to lack of clarity of the scheme of analysis for assessing resources and constraints, unclear feedback, as well as the unrefined method used in some of the assessment exercises, indicate that Module Four must be revised substantially.

The curriculum analysis tool, again because of time constraints, was administered as homework with an accompanying exercise that asked participants to rate two sample curricula with the aid of the tool. Affective and transactional data gathered on this portion of the training unit indicate that most of the negative comments were directed toward the exercise, which was judged insufficient, rather than the tool. It is assumed that since the affective questionnaire was appended to the accompanying exercise--judged confusing and unclear--there was some transfer of negative feeling from the exercise itself to the affective responses for the analysis tool.[10]

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[9] See comments in Appendix, p. A-40.

Negative affective responses on the tool were contradicted in many cases by verbal participant endorsements directed at its utility and potential marketability. Moreover, previous positive transactional data gathered on the tool, and the fact that it was used by several participants during training sessions to refresh their memories on the conceptual framework used in the unit, counter the fact that only one of fourteen affective items achieved the standard imposed. The exercise, therefore, will be substantially revised, and revisions of the tool will wait until further field test data are gathered.

An overall expression of participant interest, and judgment of the training unit's utility, was gathered by asking two questions on the biographical information form completed by each participant in the field test. In answer to the question: "Do you now have in mind an area of utilization for any new skills you may acquire from this (these) training units?", there were 19 "yes" responses and 7 "no" responses (one participant failed to respond to this question). In answer to the second question: "Are you interested in participating in future field testing of training units?", there were 16 "yes" responses and 4 "no" responses, (5 failed to respond and two were not sure).

The above responses indicate that the strong negative feeling manifested publically was somewhat reduced when participants responded privately. They also indicate that those having strong negative feelings about their M.A.

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[10] See comments in Appendix, p. A-41.

program in general--and the training unit in particular--might have been more likely to express those feelings to the training coordinator, not the instructor in charge, than were their more affable peers. This interpretation of participant behavior is consistent with the fact that the Program's need to collect product evaluation data frequently runs counter to the predispositions of field test participants. Regardless of these contingencies, however, corrective action is required on this training unit before once again field testing the product. Plans for such action follow.

DESIGNING INSTRUCTIONAL PROGRAMS

Module One - "Blackboard Blues"

Affective Questionnaire

The developers of this training activity would like to know whether you regard the knowledge and processes covered useful to you and applicable to your work. It is also important to know your reactions to specific elements of the "Blackboard Blues" Game. Please indicate your feelings and attitudes by circling the appropriate number to the right of each item.

	NOT AT ALL — MODERATELY — COMPLETELY (*Mean*)	*Standard Achieved?*
I. Value of Training Elements.		
1. Are the directions to the Game clear enough to allow you to perform its activities?	1 2 3 4 5 ▽ 6 7	Yes
2. Is the Glossary clear enough to allow easy understanding of the definitions?	1 2 3 4 ▽5 6 7	Yes
3. Does the organization and content of the Game board provide a comprehensive format for outlining instructional program design decisions?	1 2 3 4 ▽ 5 6 7	Yes
4. Do the Handicap Cards provide enough of a handicap to even the chances of competing teams?	1 2 3 ▽ 4 5 6 7	Yes

Note: In the original versions, spaces for comments was provided for every item. The symbol ▽ shows the location of the mean response. The criterion for achievement of the standard is described in the text.

II. Methodology and Execution.

	NO INTEREST			MODERATE INTEREST			INTENSE INTEREST	*Standard Achieved?*
1. As the Game progressed, did you find that you developed an interest in it?	1	2	3	4 $\bar{X}$	5	6	7	No
2. Did you find the challenge process used in the Game to be interesting?	1	2	3	4	5 $\bar{X}$	6	7	Yes
3. Did you find that the Handicap Cards were interesting?	1	2	3	4	5 $\bar{X}$	6	7	Yes
4. Did you find that working as a team gave you "realistic" practice in the tasks required for designing instructional programs?	1	2	3	4 $\bar{X}$	5	6	7	No

III. Value of the Module

		NOT AT ALL		MODERATELY	*Mean*	COMPLETELY		*Standard Achieved?*
1. Do you feel that the Game helped you gain an understanding of the process of designing instructional programs?	1	2	3	4 $\bar{X}$	5	6	7	No
2. Did you like this module?	1	2	3	4 $\bar{X}$	5	6	7	No
3. Would you recommend the Game to others involved in designing instructional programs.	1	2	3	4 $\bar{X}$	5	6	7	No
4. If you were able to have the Game available in your school, could you use it to design instructional programs for any subject at any grade level?	1	2	3	4 $\bar{X}$	5	6	7	Yes

5. Please make any additional comments that you have on the Blackboard Blues Game below.

DESIGNING INSTRUCTIONAL PROGRAMS

Module Two - "Analyzing Basic Assumptions"

Affective Questionnaire

The developers of this training module would like to know whether you regard the knowledge and processes covered useful to you and applicable to your work. It is also important to know your reactions to specific elements of "Analyzing Basic Assumptions." Please indicate your feelings and attitudes by circling the appropriate number to the right of each item.

	NOT AT ALL			MODERATELY	*Mean*		COMPLETELY	*Standard Achieved?*
I. Value of Training Elements.								
1. Is the "Plight of the Naciremans" an adequate way of introducing the process of analyzing basic assumptions?	1	2	3	4	5 $\bar{X}$	6	7	Yes
2. Is the "Parable of the Fish" an adequate way of introducing one set of attitudes, feelings, or beliefs about man and learning?	1	2	3	4	5 $\bar{X}$	6	7	Yes
3. Are the suggested responses (Assumptions and Interpretations) for the "Parable of the Fish" clear and comprehensive enough for you to understand one set of attitudes, feelings, or beliefs about man and learning?	1	2	3	4	$\bar{X}$ 5	6	7	Yes
4. Is the team activity helpful in analyzing basic assumptions drawn from the "Parable of the Chicken?"	1	2	3	4	$\bar{X}$ 5	6	7	Yes
5. Are the suggested responses (Assumptions and Interpretations) for the "Parable of the Chicken" clear and comprehensive enough for you to understand one set of attitudes, feelings, or beliefs about man and learning?	1	2	3	4 $\bar{X}$	5	6	7	No

		NOT AT ALL		MODERATELY	*Mean*	COMPLETELY		*Standard Achieved?*
6.	Is the team activity helpful in analyzing basic assumptions drawn from the "Parable of the Ape?"	1	2	3	4	▽$\bar{X}$ 5	6	7	Yes
7.	Are the suggested responses (Statements and Interpretations) for the "Parable of the Ape" clear and comprehensive enough for you to understand how basic assumptions directly influence instructional program design?	1	2	3	4	▽$\bar{X}$ 5	6	7	Yes
8.	Is the team activity helpful in analyzing basic assumptions drawn from the "Parable of the Rare Bird?"	1	2	3	4	▽$\bar{X}$ 5	6	7	Yes
9.	Are the suggested responses (Statements, Interpretations, and Revisions) for the "Parable of the Rare Bird" clear and comprehensive enough for you to understand how basic assumptions directly influence instructional program design?	1	2	3	4	▽$\bar{X}$ 5	6	7	Yes

II. Methodology and Execution.

1.	Is the Nacireman theme an enjoyable way to practice the process of analyzing basic assumptions?	1	2	3	4	5 ▽$\bar{X}$	6	7	Yes
2.	Is the writing quality of "Analyzing Basic Assumptions" adequate?	1	2	3	4	▽$\bar{X}$ 5	6	7	Yes
3.	Do the elements of the training module fit well together?	1	2	3	4	▽$\bar{X}$ 5	6	7	Yes

III. Value of the Module.

	NOT AT ALL			MODERATELY	*Mean*		COMPLETELY	*Standard Achieved?*
1. Do you feel that Module Two helped you gain an understanding of the process of analyzing basic assumptions?	1	2	3	4 ▽$\bar{X}$	5	6	7	No
2. Do you like this module?	1	2	3	4 ▽$\bar{X}$	5	6	7	Yes
3. If you were involved in designing instructional programs in your school, and were able to have this module, could you use it as a guide to analyze basic assumptions?	1	2	3	4 ▽$\bar{X}$	5	6	7	No

4. Please make any additional comments that you have on "Analyzing Basic Assumptions" below.

DESIGNING INSTRUCTIONAL PROGRAMS

Module Three - "Matching Programs With Goals"

Affective Questionnaire

The developers of this training module would like to know whether you regard the knowledge and processes covered useful to you and applicable to your work. It is also important to know your reactions to specific elements of the module. Please indicate your feelings and attitudes by circling the appropriate number to the right of each item.

		NOT AT ALL		MODERATELY	*Mean*	COMPLETELY		*Standard Achieved?*
I. Value of the Training Elements.								
A. Did you find the four goal levels helpful in the process of matching programs with goals?	1	2	3	4	▽ 5	6	7	Yes
B. Is the "Plight of the Naciremans Revisited" an adequate way of introducing the process of matching programs with goals?	1	2	3	4	▽ 5	6	7	Yes
C. Is the team activity helpful in matching Pre-Stated goals for consistency with the proposal and for appropriateness with a particular program?	1	2	3	4	5 ▽	6	7	Yes
D. Does your Preferred Instructional Program serve as an adequate prototype for matching with the Pre-Stated Curricular Objectives?	1	2	3	4	▽ 5	6	7	Yes
E. Does the set of instructional objectives provide enough guidance for you to select the most appropriate options for a reading program?	1	2	3	4	▽ 5	6	7	Yes

NOT AT ALL MODERATELY COMPLETELY

*F. Are the simulated Case Study and Information Bits on Janus Junior High adequate to establish the context for the Take-Home exercise on resources/constraints? 1 2 3 4 5 6 7

*G. Does the set of Curricular Objectives adequately define the Environmental Studies Program so that you can assess the resources and constraints governing it well enough for you to judge its feasibility? 1 2 3 4 5 6 7

H. Are the Suggested Responses for each activity or exercise clear and comprehensive enough to enable you to complete the activity or exercise adequately? If not, explain why below.

Mean *Standard Achieved?*

1 2 3 $\overset{\triangledown \bar{X}}{4}$ 5 6 7 No

II. Methodology and Execution.

A. Is the plight of the Naciremans sufficiently removed to enable you to assess their problem objectively? 1 2 3 4 $\overset{\triangledown \bar{X}}{5}$ 6 7 Yes

B. Given the context of the simulation does it enable you to participate more fully in the team activity? 1 2 3 4 $\overset{\triangledown \bar{X}}{5}$ 6 7 Yes

**C. Do the simulated Case Study and the Information Bits establish the context well enough for you to assess the resources and constraints governing the Environmental Studies Program? 1 2 3 4 5 6 7

---

*Items F and G referred to the take-home exercise concluding Module Three. Data for these items are found in the section on Module 4, items IVA and IVB.

**This item referred to the take-home exercise concluding Module Three. Data for this item are found in the section on Module 4, item IVC.

		NOT AT ALL			MODERATELY	*Mean*	COMPLETELY		*Standard Achieved?*
D.	Do you think that the activities and exercises demand too much writing?	1	2	3	4	▽ 5	6	7	No
E.	Is the written style of "Matching Programs With Goals" adequate?	1	2	3	4	▽ 5	6	7	Yes

III. Value of the Module.

A.	Do you feel that Module Three helped you understand the process of matching programs with goals?	1	2	3	4	▽ 5	6	7	Yes
B.	Do you like this module?	1	2	3	▽ 4	5	6	7	No
C.	If you were engaged in designing instructional programs for your school, could you use this module as a guide for matching programs with goals?	1	2	3	▽ 4	5	6	7	No

D. Please make any additional comments on "Matching Programs With Goals" below:

DESIGNING INSTRUCTIONAL PROGRAMS

Module Four "Assessing Resources and Constraints"

Affective Questionnaire

The developers of this training module would like to know whether you regard the knowledge and processes covered useful to you and applicable to your work. It is also important to know your reactions to specific elements of the module. Please indicate your feelings and attitudes by circling the appropriate number to the right of each item.

	NOT AT ALL			MODERATELY	*Mean*			COMPLETELY	*Standard Achieved?*
I. Value of the Training Elements.									
A. Does the scheme of analysis (goals, decision-making, leadership, motivation, monitoring and maintenance) help you gain insight into prevailing resources and constraints in a school setting?	1	2	3	4	▽	5	6	7	No
B. Does the "Summary Report" from the Principal of Arcadia High School adequately describe the institutional and social resources that contributed to the success of Arcadia's program?	1	2	3	4		▽ 5	6	7	Yes
C. Is the team activity helpful in identifying the prevailing resources and constraints in Arcadia High School?	1	2	3	4		▽ 5	6	7	Yes
D. Does the module's training development adequately prepare you for the culminating individual activity?	1	2	3	4	▽	5	6	7	Yes

						Mean		
	NOT AT ALL		MODERATELY			COMPLETELY		Standard Achieved?
E. Do Ironglove's memo and the "in-basket" information establish the context adequately for you to perform the corresponding exercises?	1	2	3	4 ▽	5	6	7	Yes
F. Are the Suggested Responses for each exercise clear and comprehensive enough to enable you to resolve any difficulty you may have encountered in an exercise?	1	2	3	4 ▽	5	6	7	No
II. Methodology and Execution								
A. Are Arcadia High School and Polytechnic High School contrasted markedly enough to provide you a good perspective to view the potential schizoid behavior of resources and constraints?	1	2	3	4	5 ▽	6	7	Yes
B. Given the context of the simulation, does it enable you to participate more fully in the team activity?	1	2	3	4 ▽	5	6	7	No
C. Is the written style of "Assessing Resources and Constraints" adequate?	1	2	3	4 ▽	5	6	7	Yes
III. Value of the Module								
A. Do you feel that Module Four helped you identify and assess resources and constraints that could determine the feasibility of an instructional program?	1	2	3	4 ▽	5	6	7	No
B. Did you like this module?	1	2	3 ▽	4	5	6	7	No

				Mean				*Standard Achieved?*
		NOT AT ALL		MODERATELY			COMPLETELY	
C. Are the resources and constraints identified in this module similar to the prevailing ones in your own school or district? If not, please list below the ones that are not.	1	2	3	▽ 4	5	6	7	No
D. If you were engaged in designing instructional programs for your school could you use this module to guide you in assessing resources and constraints?	1	2	3	4 ▽	5	6	7	No

IV. Take-Home Exercise

A. Are the Simulated Case Study and Information Bits on Janus Junior High adequate for establishing the context for the Take-Home exercise on resources and constraints?	1	2	3	4 ▽	5	6	7	No
B. Does the set of Curricular objectives adequately define the Environmental Studies Program so that you can assess the resources and constraints governing it well enough for you to judge its feasibility?	1	2	3	4 ▽	5	6	7	No
C. Can you identify the prevailing resources and constraints on the Environmental Studies Program given the Simulated Case Study and Information Bits?	1	2	3	4 ▽	5	6	7	No

AFFECTIVE QUESTIONNAIRE

Pocket Curriculum Analyzer

The Pocket Curriculum Analyzer is a tool for helping you analyze, design, rate, and select instructional programs. To help us determine its effectiveness, please respond to the questionnaire by circling the appropriate number following each question. Please write in any comments that would further clarify your responses.

				Mean				*Standard*
	NOT AT ALL		MODERATELY		COMPLETELY			*Achieved?*
I. Value of the Analyzer Elements								
A. Do you think that the Analyzer would enable you to design your own curriculum even if you had not played Blackboard Blues?	1	2	3	▽4	5	6	7	No
B. Does the Analyzer help you organize your thoughts about an instructional program?	1	2	3	4	▽5	6	7	Yes
C. Does it help you establish a set of preferences for your own instructional program?	1	2	3	4	▽5	6	7	No
D. Do you think the Analyzer will rate different curricula well enough to enable you to compare them and make a selection?	1	2	3	4 ▽	5	6	7	No
E. Does the "weighting" system refine the selection process to the point of enabling you to select a program among seemingly equivalent programs?	1	2	3	▽4	5	6	7	No
II. Methodology and Execution								
A. Are the directions for using the Analyzer clear?	1	2	▽3	4	5	6	7	No

	NOT AT ALL — MODERATELY — COMPLETELY (▽ Mean)	*Standard Achieved?*
B. Is the Rating System and are the decision-points useful?	1 2 3 ▽ 4 5 6 7	No
C. Is the scoring system decisive enough (do you think that the weighting system will be used too often)?	1 2 3 ▽ 4 5 6 7	No
D. Are the design categories in the Analyzer similar to the ones your school normally considers? If not, please list them below:	1 2 3 4 ▽ 5 6 7	No
E. Are the categories organized in such a way that the Analyzer is a unified and self-contained unit?	1 2 3 4 ▽ 5 6 7	No
F. Is the written style of the Analyzer suitable for this sort of tool?	1 2 3 4 ▽ 5 6 7	No

III. Value of the Analyzer

A. Do you feel that the task of rating and then selecting instructional programs are immediate to your professional needs?	1 2 3 4 ▽ 5 6 7	No
B. If you were given the task of designing or selecting an instructional program for your school, would you use the Analyzer?	1 2 3 4 ▽ 5 6 7	No
C. If you used it to rate several curricula, would you rely on the rating and/or weighting scores given by the Analyzer?	1 2 3 ▽ 4 5 6 7	No

TABLE II

Affective Results - Module 1

Item #	I-1	I-2	I-3	I-4	II-1	II-2	II-3	II-4	III-1	III-2	III-3	III-4
N	20	20	20	7	19	19	8	19	20	20	20	17
$\bar{x}$ = mean	5.70	5.00	4.65	3.57	4.68	5.11	5.13	4.79	4.15	4.70	4.60	4.82
S = SD	.98	1.38	1.76	1.27	1.80	1.91	1.13	1.84	1.84	1.78	2.04	1.42
$s\bar{x}$ = SEM	.22	.31	.39	.48	.41	.44	.40	.42	.41	.40	.46	.35
Standard	4.44	4.62	4.78	4.96	4.82	4.88	4.80	4.84	4.82	4.80	4.92	4.70
Achieved?	YES	YES	NO	NO	NO	YES	YES	NO	NO	NO	NO	YES

TABLE III

Affective Results - Module 2

Item #	I-1	I-2	I-3	I-4	I-5	I-6	I-7	I-8	I-9	II-1	II-2	II-3	III-1	III-2	III-3
N	26	26	26	26	26	26	26	25	26	25	26	26	26	25	23
$\bar{x}$ = mean	5.31	5.23	5.00	4.96	4.58	5.04	4.73	4.76	4.58	5.28	4.88	4.77	4.27	4.84	4.04
S = SD	1.38	1.21	1.47	1.61	1.75	1.34	1.19	1.69	1.45	1.51	1.37	1.37	1.64	1.68	1.87
$s\bar{x}$ = SEM	.27	.24	.29	.32	.34	.26	.23	.34	.28	.30	.27	.27	.32	.34	.39
Standard	4.54	4.48	4.58	4.64	4.68	4.52	4.46	4.68	4,56	4.60	4,54	4.54	4.64	.468	4.78
Achieved?	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES	NO	YES	NO

Note: The item numbers in these tables are keyed to the questions on the preceding pages.

TABLE IV

Affective Results - Module 3

Item #	I-A	I-B	I-C	I-D	I-E	I-F	I-G	I-H	II-A	II-B	II-C	II-D	II-E	III-A	III-B	III-C
N	27	27	26	26	25	See Items IV-A and IV-B, Table V, for these results		26	26	25	See Item IV-C, Table V, for these results	26	24	26	26	25
x̄ - mean	4.78	4.85	5.23	4.62	4.68			4.27	4.96	5.00		4.56	4.83	4.85	4.19	4.12
S = SD	1.15	1.17	1.39	1.13	1.14			1.40	1.31	1.47		2.06	1.13	1.32	1.86	1.96
Sx̄ = SEM	.22	.22	.27	.22	.23			.27	.26	.29		.41	.23	.26	.36	.39
Standard	4.44	4.44	4.54	4.44	4.46			4.54	4.52	4.58		3.18	4.46	4.52	4.72	4.78
Achieved?	YES	YES	YES	YES	YES			NO	YES	YES		NO	YES	YES	NO	NO

TABLE V

Affective Results - Module 4

Item #	I-A	I-B	I-C	I-D	I-E	I-F	II-A	II-B	II-C	III-A	III-B	III-C	III-D	IV-A	IV-B	IV-C
N	24	24	24	24	24	24	24	24	24	24	24	23	23	18	18	18
x̄ = mean	4.63	5.00	4.96	4.63	4.58	4.54	5.08	4.33	4.56	4.38	3.88	3.96	4.35	4.22	4.22	4.11
S = SD	1.58	1.41	1.57	1.47	1.21	1.44	1.38	1.63	1.26	1.47	1.60	1.72	1.77	1.22	1.11	1.37
Sx̄ = SEM	.32	.29	.32	.30	.25	.29	.28	.33	.25	.30	.33	.36	.37	.29	.26	.32
Standard	4.64	4.58	4.64	4.60	4.50	4.58	4.56	4.66	4.50	4.60	4.66	4.72	4.74	4.58	4.52	4.64
Achieved?	NO	YES	YES	YES	YES	NO	YES	NO	YES	NO	NO	NO	NO	NO	NO	NO

Table VI

Affective Results - Pocket Curriculum Analyzer

Item #	I-A	I-B	I-C	I-D	I-E	II-A	II-B	II-C	II-D	II-E	II-F	III-A	III-B	III-C
N	15	16	14	14	14	15	14	13	15	14	14	13	13	13
$\bar{x}$ = mean	3.93	4.81	4.86	4.14	3.93	3.07	3.64	3.38	4.47	4.57	4.07	4.46	4.69	3.77
S = SD	1.71	1.50	1.70	1.51	1.64	1.91	1.69	1.33	1.88	1.74	1.82	1.27	1.75	1.36
$S_{\bar{x}}$ - SEM	.44	.39	.46	.40	.44	.49	.45	.37	.49	.47	.49	.35	.49	.38
Standard	4.88	4.78	4.92	4.80	4.88	4.98	4.90	4.74	4.98	4.94	4.98	4.70	4.98	4.76
Achieved?	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

General Comments - Written and Verbal

Module One - "Blackboard Blues" Game

1. "The pre-test at the beginning was too long and difficult to understand."
2. "Only present game in one three hour session; nothing else."
3. "I feel that you should be able to make more than one choice per step."
4. "This game is a good warm-up exercise for orienting teachers to the difficult process of curriculum development. It is very comprehensive in all areas covered in the area of curriculum design. Provides much information and is comprehensive in scope."
5. "It is too easy to become detached from the purpose of the game and make a 'game' of it. There should be a way to make players commit--they have to feel a responsibility even if only intellectually induced."
6. "Moderator should be stronger in keeping the principle of the game before the players--What is the object?; is what you are doing contrary or in line with this?"
7. "Winning the game is not enough. There must be a feeling of creative pride in the design itself that seems superior to the participant, for a reward."
8. "Organization and content of the Game board was excellent."
9. "Game definitely helped me gain an understanding of the design process."
10. "I liked the module even with the shortcomings! (not enough time). Under better circumstances I would definitely like it."

General Comments - Written and Verbal

Module Two - "Analyzing Basic Assumptions"

1. "Interesting exercises; however, fails to have the reality and urgency facing administrators each day."
2. "I feel adrift--and haven't internalized the situations."
3. "I liked it because it emphasizes the importance of analyzing the value, scope, purpose, and nature of the educational process."
4. "A good, critical analysis technique designed in a very enjoyable format."
5. "More time required to do this type of activity when there has been no previous experience in this process."
6. "This was difficult at first, not because of the material but because of my own 'set' which had turned me off."
7. "I found little evidence of a process of analyzing basic assumptions except to go back and check evidence."

General Comments - Written and Verbal

Module Three - "Matching Programs With Goals"

1. "It was much clearer than Module 2."
2. "Length of Module 3."
3. "Too much, too soon."
4. "If I were a full time curriculum specialist instead of a classroom teacher, the material would be most beneficial."
5. "Much too long and too much writing. Discussions were good--taped reading would enhance this program. Some of the information was helpful, however."
6. "Too much at one time without motivation, and in general it was not meaningful to me."

General Comments - Written and Verbal

Module Four - "Assessing Resources and Constraints"

1. "Latter part of module not specific. Asked for very broad statements."
2. "Good exercise in analysis."
3. "I can't even remember it at this point--too concentrated an approach on top of an already crowded schedule which was typical of most of the students."
4. "It was better than the others because it wasn't so long!"
5. "Definitely could use this module as a guide in assessing resources and constraints in my school."
6. "Resources and constraints very similar to the prevailing ones in my school."
7. "This is a fascinating adventure in curriculum development; however I feel that your "modules" could very well be a semester course in itself."
8. "Morale's too low to give a true assessment of your module!"
9. "Suggestions:
    1. Present this workshop at early stage of course.
    2. Clarify with professor the work expectancies--so he matches his assignments respectively.
    3. Clarify with students task expectancies prior to tasks.
    4. I think the materials are generally good and useful--provided presented in a good setting re:
        a. attitudes
        b. time allocation
        c. take-home work expectancies."

General Comments - Written and Verbal

Pocket Curriculum Analyzer

1. "I am thoroughly confused."
2. "The idea seems to be useful, but the directions are totally unclear, making the whole experience negative."
3. "The Analyzer serves as an excellent source in evaluating one's program for specifics. It is well thought out. The Curriculum Analyzer enables one to double-check his own instructional program (or daily lesson plan) for consistency in objectives, methods, and materials used to reach the desired outcomes that are consistent with goals earlier voiced at the start of the school year."
4. "Directions poor--task poorly defined--directions confusing."
5. "I'm still confused as to how it operates."

Attachment 2

EVALUATION REPORT ON THE TRAINING UNIT

DESIGNING INSTRUCTIONAL PROGRAMS

OCTOBER 1974

Prepared by:

George E. Temp
Research Psychologist
Lafayette, California 94549

OCTOBER 1974

Abstract

EVALUATION REPORT
ON THE TRAINING UNIT

DESIGNING INSTRUCTIONAL PROGRAMS

Six training situations similar to the normal "use market" for this training material developed by the Far West Laboratory for Educational Research and Development were involved in the final field test during the Spring and Summer of 1974. Analyses of the data obtained indicate positive affective responses and practically significant increases in the ability of participants to identify important curriculum comparison categories, to specify appropriate classroom procedures given a set of cognitive and affective goals, to calculate rough cost analyses of proposed instructional programs, and to utilize the specific vocabulary and concepts of curriculum design of the unit developers. A distribution version with coordinator's handbook is currently available. It is recommended for use in college and school district teacher education settings.

Evaluation Report by

George E. Temp
Research Psychologist
Lafayette, California

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INTRODUCTION

The need for evaluation of newly developed curricular materials is now widely accepted. Therefore, this report will not dwell upon the importance and urgency of such evaluation studies. The training unit Designing Instructional Programs, developed by the Far West Laboratory for Educational Research and Development, was evaluated during a final field test in the Spring and Summer of 1974. This report describes the materials and the information base upon which evaluation conclusions were made, and suggests the most likely cognitive and affective outcomes to be expected in future uses of the distribution version of the unit.

Description of the materials. The distribution version of the training materials consists of five modules (bound in two unequal size volumes), the game materials necessary for playing Chalk Talk, and a coordinator's handbook.

According to the developers the unit's overall purpose is to improve instruction by preparing school decision makers to make more defensible choices regarding the form and content of instructional programs. To achieve this overall purpose each module has more specific purposes.

These purposes are listed below.

The purposes of the Chalk Talk game (Module One) are to:

- provide the vocabulary and definitions requisite for designing instructional programs
- provide a procedure for making systematic decisions about the content of programs
- provide a means of analyzing program decisions for logical consistency so that the effects of initial decisions can be traced in the final program outline
- provide a vehicle that familiarizes participants with making, defending, and revising program design decisions in a group so that each player -- whether student, parent, or professional -- can understand the rationale and procedures behind a certain program design

The purposes of Analyzing Basic Assumptions (Module Two) are to:

- provide an organizing framework by which participants can examine their personal feelings about human beings, the world, and learning so that decisions about the use of particular instructional program procedures can be made in light of these feelings
- provide a means by which participants can analyze their assumptions about people and learning in relation to the assumptions of others
- provide a vehicle through which articulated basic assumptions can be agreed upon to establish a group value basis on which programs can be designed
- enable the most appropriate program procedures to be selected on the basis of consensual lists of basic assumptions about learning

The purposes of Matching Programs With Goals (Module Three) are to:

- provide significant characteristics of various types of goals so that goals can be categorized
- provide a tool and guidelines for sorting disparate goal statements into common types
- provide a tool and guidelines for classifying observable or measureable behaviors so that a starting point may be reached for matching programs with selected goals
- provide a means for developing a complete program outline that is consistent with pre-stated instructional goals and objectives

The purposes of Assessing Resources and Constraints (Module Four) are to:

- provide instruments so that participants can conduct rough cost analyses for proposed programs in terms of staff requirements, materials, facilities and equipment
- provide a procedure for participants to rate instructional programs for feasibility by "trading-off" certain aspects of programs for other, more desirable ones
- provide examples of institutional resources that can help make programs work, and constraints that should be removed or are unavoidable
- provide a procedure by which participants can identify social resources and constraints that benefit or impair the feasibility of instructional programs

The purposes of Selecting Curricula (Module Five) are to:

- provide a means for organizing participants' thoughts about curricula for possible inclusion in program outlines
- provide a procedure so that information about curricula can be gathered and recorded in a systematic manner

- enable participants to rate several alternative curricula for appropriateness in their school setting
- provide a procedure so that curricula can be rank-ordered according to preferences and requirements of outlined programs

The training unit, in total, attempts to accomplish these purposes by providing participants knowledge, guidelines, and tools in a series of flexibly administered workshop settings that are guided by directions and suggestion contained in the coordinator's handbook.

This brief description of the materials should be supplemented by detailed examination of the training unit itself in order to help the reader envision the curricular experience evaluated and reported on in this paper. Ideally, anyone planning to use the training materials in a college or school setting would first go through the experience as a participant under someone else's direction and guidance. However, it is clear from the field trails completed that a coordinator can do an excellent job just by using the coordinator's handbook and answering questions by common sense as they arise during the training sessions.

EVALUATION METHOD

Description of the evaluation plan. There were two main data collecting activities built into the overall evaluation plan. These were (1) direct observation of the conduct of a sample of the field trials, and (2) paper and pencil tests administered as PREVIEW and EPILOGUE instruments.

Direct observation was concerned with (1) noting the problems of the coordinator and participants in dealing with the training materials, (2) questions that were raised by participants that indicated confusion or misunderstanding of the directions or concepts in the materials, and (3) affective reactions to different portions of the scheduled activities or fatigue reactions to the intensiveness of the training. The purpose of the direct observation was to collect formative kinds of information which have been reported separately to the developers, and to aid in interpretation of the objective measures of learning outcomes collected by the paper and pencil tests.

Description of the data gathering instruments. The PREVIEW and EPILOGUE instruments were designed and revised by the evaluator. These instruments were designed to collect as much information as possible in a restricted time period. It was important that the time spent on testing not be considered as intrusive or unreasonable by the volunteer trainees.

The instruments finally developed required 25 to 40 minutes for completion, with the EPILOGUE instrument requiring closer to 40 minutes because of the inclusion of two additional questions.

The assessment situations in the evaluation instruments were related to general skills and abilities useful to anyone working on the design of instructional programs. That is, the test situations could be used independently from the training materials to arrive at conclusions about a group's present ability to undertake some typical curriculum committee tasks.

The three important abilities assessed were:

- the ability to select curriculum comparison categories of importance
- the ability to specify appropriate classroom procedures to accomplish a given set of behavioral objectives
- the ability to compute rough cost analyses of a proposed program given a set of district guidelines and cost figures

The training unit being evaluated was not the only experience that might have increased these abilities in participants. For instance, a straight lecture approach on these topics might have produced either greater or lesser gains in these abilities. The assessment situations were designed to allow any increases in the group's ability to deal with complex situations to emerge and be shown clearly.

In addition, the EPILOGUE instrument allowed for the collection of information on two curriculum specific questions that could only be answered by persons exposed to the specific training materials being evaluated.

Both the PREVIEW and EPILOGUE instruments contained a section designed to obtain information about the more subjective and affective reaction of participants to their experience, and to their sense of being able to perform well in a curriculum committee situation.

Appendix A contains complete copies of both the PREVIEW and EPILOGUE instruments and should be examined in detail by those interested in the specifics of the assessment situations. Some feeling for the assessment situations is also contained in a later section of this report, Evaluation Results and Conclusions, where the specific items are discussed.

Description of the Final Field Test situations. The Final Field Test series consisted of six trials conducted from May through August, 1974. The first in the series, the May trial, was a pilot test of the proposed field test version of the materials and of the evaluation instrumentation and strategies. Revisions were made in both the materials and the evaluation instruments on the basis of the pilot test in May.

The remaining five trials, held during July and August, provided the information base upon which evaluation conclusions were reached. It is apparent, however, from the items that remained unchanged in the evaluation instruments that the pilot test situation in May would have fitted comfortably within this final series if the total test items had remained unchanged. That is, the six trials all reflect essentially the same kinds of cognitive and affective outcomes, although only the final five trials are reported on here.

Summary of Final Field Test

May trial (pilot)	N= 10	teachers and administrators from Catholic school system
July trial	N= 26	college class for educational administrators and persons planning to be administrators
August trial (a)	N= 8	special one credit college course held during one week
August trial (b)	N= 7	in-service school district retreat for administrators
August trial (c)	N= 19	in-service school district workshop
August trial (d)	N= 17	school district pre-Fall workshop

The total number of participants in the five trials that form the basis of this report was 77. This includes two trials in college class situations and three in school district use situations. This distribution reflects the expected two "use markets" for the training unit.

Organization and conduct of a field trial, just as any future use of the training materials, was structured and guided by the coordinator's handbook that accompanies the training unit. Of the final field trials reported here, three of the trials were led by the developers; two of the trials were conducted by others, unfamiliar with the materials until the actual field trial and using the handbook as guide.

EVALUATION RESULTS AND CONCLUSIONS

This section of the evaluation report details the results obtained and the conclusions arrived at point by point. Although an effort has been made to make this as clear as possible for the reader some consultation with the evaluation instruments in Appendix A will aid understanding greatly. This lengthy section of the report is divided into consideration of cognitive outcomes and affective outcomes separately.

Cognitive outcomes. One of the assessment situations presented to the participants, both before and after training, was introduced in the following manner:

Situation

> The following areas or dimensions for comparisons among curricula have been suggested by a subcommittee of the District Curriculum Committee. Now it is time for each member of the Committee to vote for those categories of comparisons that are absolutely essential if the Committee is to do a really "expert" job. On this and the next page, please vote by checking (✓) those categories of comparisons that you feel ought to be used to compare different proposed curricula.

By examining those categories of comparisons most frequently selected by group members, it is possible to describe the criteria the group believes are important.

On the PREVIEW, 87 per cent of the participants reported themselves as having had advanced work or degrees in curriculum and instruction or other education specialties. Therefore, these participants were not untrained or unfamiliar with curriculum analysis concepts prior to working on Designing Instructional Programs.

Result. Prior to training on the unit, 90 per cent or more of the participants considered as "absolutely essential" only two dimensions of curriculum comparisons. These were:

- scope of the content covered
- intended results of instruction

If a criterion of 75 per cent or more were used instead, than three additional dimensions would be added. These were:

- organization of the content
- reading difficulty level of the materials
- goals and objectives stated for the materials

Together these five aspects of comparison among different curricula make a respectable but rather restricted set to be considered in selecting a program for adoption in a school district.

Many of the purposes and objectives of the training unit, in the opinion of the evaluator, were aimed at increasing the ability of participants to select curriculum comparison categories of importance. If the training was effective in this major area, then we would expect to see a much more comprehensive set of dimensions endorsed after exposure to Designing Instructional Programs.

Such was the case. After training a greatly expanded list of dimensions were selected by 75 per cent or more of the participants. Besides the five dimensions already listed, the group now indicated that the following additional aspects of the proposed programs ought to be compared:

- function of the teacher implied in the materials
- role of the student implied in the materials (passive/active)
- teaching/learning method implied or stated
- size of student groups inherent to the materials
- special requirements for classroom staffing
- necessity for any specialized equipment or hardware
- physical arrangements for use inherent to the materials
- special subject matter competency required of teachers using the materials
- cost per student to purchase and maintain these materials
- kind of student evaluation built in (exams, no exams, etc.)
- length of the complete curriculum in weeks or semesters
- educational philosophy implicit or stated

A total of 17 comparison categories were felt to be important by the participants after training. Many readers, studying in detail this extended list, might agree that a curriculum committee that did its work considering such things as costs, evaluation, special staff requirements, and so forth would be more likely to do a better job.

Conclusion. A practically significant expansion of the ability of the participants to select curriculum comparison categories of importance was achieved. The group that prior to training would have been content with comparisons on two to five dimensions was, after training, indicating that up to 17 comparison dimensions were essential to doing an expert job.

Cognitive outcomes (continued). Another cognitive outcome of importance, and central to the main thrust of the training materials, was assessed in a complex situation to be found on pages 4 and 5 of the PREVIEW instrument in Appendix A. This assessment situation measures the participants' ability to specify appropriate classroom procedures, given a particular set of cognitive and affective goals to be accomplished.

The five behaviorally stated objectives to be accomplished (for a Spanish program in Grades 7-8) were studied by participants. They then were to indicate those classroom procedures and conditions which most logically should be followed to accomplish these objectives.

Result. Prior to training when asked to outline a preferred method to accomplish the set of objectives given, 50 per cent or more of the trainees selected the following:

- a laboratory/practical experience approach to teaching
- the teacher to function as a diagnostician/prescriber and resource person

- the student to function as a mutual planner/performer
- evaluation to be a joint function of teacher and student
- materials used to accomplish the objectives would be programmed materials and teacher/student prepared materials supplemented with recorders
- instruction would be held in a single classroom with movable furniture

Thus, in effect, the group outlined a logical and appropriate set of classroom procedures or conditions to accomplish the given set of goals. This should not be surprising because these were all experienced and trained educators used to making decisions about such matters.

Before training, these same people had expressed their greatest amount of confidence as a group (62 per cent) that they had the ability to do just that: specify appropriate classroom procedures, given a particular set of cognitive and affective goals. This contrasts with their 16 per cent expression of confidence that they had the ability to clearly define critical characteristics of different types of learning goals; their 26 per cent confidence in their ability to compute rough cost analyses; and their 42 per cent confidence that they could classify curricular objectives using Bloom or Krathwohl. Only in confidence (57 per cent) about being able to state personal assumptions about man and learning did they approach the level associated with their ability to specify appropriate classroom procedures.

Given that they had confidence that they could specify procedures and that they did outline a credible program (within the limitations of the test question), what kind of growth, if any, would it be logical to expect on the EPILOGUE presentation of this situation?

Because there are many acceptable and appropriate classroom procedures to accomplish any set of behavioral outcomes, there are many "correct" solutions. Thus, different observors might validly be looking for shifts toward their own favorite "correct" solution. What was found was that some significant additions to the set of classroom procedures were made and one major shift was introduced after training.

The additions were (1) broadening the teaching/learning method to include an emphasis on memorization (it was a foreign language program), and (2) widening the conception of the teacher's function to include the role of information purveyor and the student's function to include listening/following.

These additions appear to be worthwhile and more realistic to the evaluator.

The shift was from emphasis upon programmed materials and teacher/student prepared materials to standard texts/workbooks and audio-visual materials to accomplish the set of objectives.

Conclusion. A more realistic and wider set of classroom procedures and conditions were suggested by the participants after exposure to the materials and experiences of the training unit. Some significant improvement in the ability of these experienced educators to specify appropriate classroom procedures was found.

Cognitive outcomes (continued). The third main ability assessed in the area of cognitive outcomes was the ability to compute rough cost analyses of a proposed program. The situation is summarized below:

Situation

> It is difficult to talk about new instructional programs without considering costs. In this meeting of the District Curriculum Committee we want to do a rough cost analysis for the newly proposed Career Education Program. The Superintendent has indicated that $10,000 is available for this program. We need to tell him how many classes of students (average size, 32 students) could be served by this program each semester. He has provided us with the following budget information:
>
> (Budget allocations and cost figures provided here. Also a Cost Analysis Form to be completed.)

This situation, although perceived by the examinee as a calculation problem, is used to assess the ability of the person to understand the process of allocation of the money resources available. The arithmetic involved for someone who sees the underlying rationale of the cost analysis form and allocation percentages provided is quite simple. Minor arithmetic errors were not of concern if the total set of answers given by the trainee seem to reflect understanding of the allocations to be made.

Result. Prior to training on the unit, 27 per cent were able to complete the cost analysis problem correctly or partially correct. This figure is interesting because, as reported earlier in this paper, some 26 per cent felt that they had the ability to compute rough cost analyses prior to training. This indicates an awareness on the part of these participants that mathematics is not one of their stronger abilities.

Much of the work in Module Four, Assessing Resources and Constraints, deals with the completion of similar cost analysis forms and discussion of trade-offs to be made when budget figures allow. If the training was effective in this important area, it would most likely be shown in an increase in the ability to see the logic behind a budget forecast form rather than in any real increase in ability to do simple multiplications and divisions. Of course, such an increase must be inferred from the ability of the participants to compute rough cost analyses that baffled the large percentage of them just prior to training.

The after training results support this idea. Upon completion of training 61 per cent of the group were able to correctly or partially correctly complete the cost analysis form. There were also fewer strike overs, side calculations, and minor errors on the EPILOGUE copy of the cost analysis form than there had been on the PREVIEW pages.

Observation during administration of the EPILOGUE evaluation instrument also supports the idea that far fewer of the participants had real difficulties in completion of this task. On the PREVIEW many participants had failed to do the item at all even after extended study of the problem and even some tentative calculations.

Conclusion. Many more of the participants understood the logic of a cost analysis form and were able to compute rough cost analyses after training than before. A practically significant increase in the ability of participants to do such analyses of a proposed instructional program was apparent.

Cognitive outcomes (concluded). Because practically significant increases in abilities of participants in the three major areas assessed were found, there is less interest in examining the lower-level knowledge outcomes. These outcomes, concerning vocabulary and curriculum specific items, were assessed by the evaluator in case no larger and more important gains were made by the trainees.

Briefly, it was found that a majority (53 to 62 per cent) of the participants could demonstrate recall of the critical characteristics of the four different types of learning goals stressed by the developers of the unit. And 22 per cent could give a full or partial answer to the question: how does analyzing our basic assumptions about man and learning relate to designing "good" instructional programs.

Both of these items were design to measure straight recall of information presented in the training program. Correct answers had to reproduce the information available in the materials. Since such recall was not stressed in the materials or in the instruction, it was not expected that most participants would be able to do very well in these questions. In a real sense such feats of memorization are not required of participants because the materials are designed to provide various "tools" that the trainees carry away with them for future use.

The results indicate that if the unit developers do want to accomplish knowledge/recall objectives (some of which are stated in the materials), they will have to adopt a different and perhaps more traditional memorization and study for examination type teaching strategy. This is not compatible with the developers more over-riding objectives of achieving application type skills in the short training period provided, and is not recommended by the evaluator.

Affective outcomes. Subjective reactions and comments about the training unit were collected in two ways: in writing and orally. The written portion was included in the EPILOGUE instrument and the oral portion was collected by the evaluator while present at the training sessions.

The first written question asked was:

> Would you recommend the training experience just completed to others?

Participants were asked to mark: Yes, No, or Uncertain. A space was allowed for amplifying comments under this question.

Summary of Results

Would you recommend the training experience just completed to others?	No	0	
	Yes	88	Per Cent
	Uncertain	12	

The second written question participants were asked was:

> Would you utilize these training materials with a curriculum study of which you were selected leader?

Again participants were asked to check: Yes, No, or Uncertain, and a space was set aside for comments.

Summary of Results

Would you utilize these training materials with a curriculum study of which you were selected leader?	No	2 (includes not applicable)
	Yes	81 Per Cent
	Uncertain	17

Although it is clear that the overwhelming response of participants is positive, both the amplifying written comments and the oral comments collected by the evaluator were considered also in reaching a conclusion.

Some of the negative comments used to explain an uncertain rating are quoted or paraphrased below:

- Time frame maybe unrealistic
- Seemed rushed -- noisy --
- I am concerned with unclear terminology, directions, and hasseling with the mechanics of using the materials
- I believe that I need more training

Positive reactions volunteered by the participants included:

- It gives a definite starting place in curriculum development
- These modules lend themselves to systematic teaching of teachers...the process is very relaxed; friendly
- I would like to set up a college credit in-service program where participants would use the modules and then apply them to an actual curricular problem

Direct observation and discussion with participants by the evaluator both formally and informally support both the enthusiasm of the participants for the experience and their statements of intent to use the materials if the actual opportunity arises. It was clear that the vast majority of those in the Final Field Trials were highly satisfied with the experience. The only recurring complaint was about the intensiveness of the experience and the need for more time to fully comprehend what had been presented. Many recommended various ways to expand the total time devoted to the training unit in future uses.

Conclusion. In the area of affective response to the training experience, participants were demonstrably positive and enthusiastic about the unit, and they were particularly desirous of increased time for the training experience. The training materials were successful in arousing interest and appreciation of the concepts presented.

SUMMARY AND RECOMMENDATION

The Final Field Trial of the Designing Instructional Programs unit was conducted during the Spring and Summer of 1974. The evaluation results indicate participants felt poitively about the training experience and that they made practically significant increases in their abilities to:

(1) identify significant curriculum comparison categories;

(2) specify appropriate classroom procedures, given a particular set of cognitive and affective goals;

(3) calculate rough cost analyses of proposed instructional programs; and

(4) utilize the specific vocabulary and concepts of curriculum design employed by the unit developers.

The body of this report has presented the evidence to support these statements and provided more comprehensive specification of each of these conclusions.

Recommendation. This unit should be made available in a distribution version for use in college and school district settings where teachers and other school personnel are in training for curriculum design responsibilities. It is an effective unit for accomplishing the behavioral outcomes specified above.

APPENDIX A

The EPILOGUE instrument contains both pre and post testing results. On items that are unique to the PREVIEW or EPILOGUE instrument the results are reported in the appropriate space on each instrument, respectively.

Results reported in
percentages of the
total trial group

Your Name ______________________

PREVIEW N = 77

There are many important skills and abilities that will be needed by anyone working on the design of instructional programs. This training unit is about to expose you to a few of them in an ordered and interesting way. Before beginning that presentation however, it is necessary to collect some information from you and to introduce you to the materials by a series of situations related to the training unit objectives. Please do the best you can on these tasks now. You may begin as soon as you are ready.

* * * *

Which of the following groupings most closely describes your background? (Please select one that is closest to being accurate.)

teacher training 12%	some advanced work in curriculum and instruction 38 %
advanced degree in curriculum (MA or Doctorate) 19 %	advanced work or degree but not in curriculum and instruction 30 %

1 % = not applicable (Supt's secretary took course)

If you were now requested to serve upon a Curriculum Committee, without further training, how confident would you be about your ability to undertake such an assignment?

very confident 28% somewhat confident 64% not confident 8%

Place a check (✓) on the line provided below opposite each ability or skill that you feel you already have.

I have the ability to:

See EPILOGUE for all other results from PREVIEW for ease of comparison

___ clearly state my personal basic assumptions about man and learning

___ clearly define the critical characteristics of different types of learning goals

___ compute rough cost analyses of instructional programs

___ classify curricular objectives according to a system such as Bloom's cognitive taxonomy or Krathwohl's affective taxonomy

___ specify appropriate classroom procedures given a particular set of cognitive and affective goals

* * * *

SITUATION

The following areas or dimensions for comparisons among curricula have been suggested by a sub-committee of the District Curriculum Committee. Now it is time for each member of the Committee to vote for those categories of comparisons that are absolutely essential if the Committee is to do a really "expert" job. On this and the next page, please vote by checking (✓) those categories of comparisons that you feel ought to be used to compare different proposed curricula.

Categories of comparisons

___ number of pages of student self-instructional materials

___ scope of the content covered

___ quality of the illustrations and graphics

___ intended results of instruction

___ function of the teacher implied in the materials

___ social, ethnic or sexual bias in the materials

___ organization of the content

___ reading difficulty level of the materials

___ role of the student implied in the materials (passive/active)

___ availability of teacher manuals

___ teaching/learning method implied or stated

___ size of student groups inherent to the materials

___ presence of additional reading and study lists

___ special requirements for classroom staffing

___ grouping of students required by materials (age, ability, etc.)

___ quality of the writing in the curriculum

___ necessity for any specialized equipment or hardware

___ special subject matter competency required of teachers using the materials

___ physical arrangements for use inherent to the materials

___ cost per student to purchase and maintain these materials

___ kind of student evaluation built in (exams, no exams, etc.)

___ reusability of the materials

___ comparisons of students built in (norms, class comparisons, etc.)

___ availability of answer manual for any problems or tests

___ information on how materials worked in classroom trials

___ quality and durability of the materials

___ convenience of the materials for student handling/storage

___ goals and objectives stated for the materials

___ consultant assistance provided in the "package"

___ length of the complete curriculum in weeks or semesters

___ educational philosophy implicit or stated

___ availability of tests for materials

Any comment: ____

SITUATION

A sub-committee of the District Curriculum Committee has submitted the following set of objectives for a new Spanish program for Grades 7-8.

Spanish Program, Grades 7-8

All of the following objectives should be achieved by our students by the end of the eighth grade:

1. The student should be able to translate correctly any written or oral material described in the Eighth Grade Course of Study for Spanish.
2. When speaking Spanish to others in the class, students should be using correct pronunciation and intonation.
3. Students should be able to demonstrate comprehension of written passages read by the teacher by correctly answering questions (oral and written) dealing with the content read.
4. Each student should have mastered a basic vocabulary of approximately 1000 words of Spanish and be able to define a random sample of those words in Spanish.
5. Students should be able to read a simple story in Spanish and converse about it comfortably in Spanish while demonstrating appreciative understanding of the story read.

* * * *

Given the achievements and behaviors represented most heavily in this set of objectives, please indicate by checking on the opposite page those classroom procedures and conditions which most logically should be followed by teachers in the school district.

First select the most logical choice(s) of teaching/learning method and then proceed to indicate your other choices within the other categories listed.

Take time to carefully study the set of objectives given before marking your choice of teaching/learning methods.

PARTIAL-LISTING OF OPTIONS/CHOICES FOR SPANISH INSTRUCTION

Teaching/Learning Methods

lecture/demonstration ___ programmed instruction ___ memorization ___

laboratory/practical experience ___ discussion/seminar ___

research/synthesis ___ discovery/inquiry ___

Teacher Function

information purveyor ___ diagnostician/prescriber ___ contractor ___

resource person ___ fellow learner ___ no teacher function ___

Student Function

listener/follower ___ fellow learner ___ self-instructor ___

mutual planner/performer ___ primary planner/performer ___

Materials

standard texts/workbooks ___ selected readings ___ no materials ___

programmed materials ___ educational games ___ A-V materials ___

teacher/student prepared materials ___ specialized materials ___

Physical Setting

single classroom with fixed furniture ___ single classroom, movable furniture ___

open space classroom with moveable furniture and walls ___

library ___ study carrels ___ other in-school location ___

out of school/industry location ___

Equipment (not materials)

small hardware (TV, talking typewriter, projector, recorder) ___

large hardware (responder systems with computer tie-in, machines) ___

specialized equipment (art, science, cooking, etc.) ___

no equipment needs ___

Evaluation

teacher evaluation of students ___ student self-evaluation ___

both teacher/student evaluate ___ evaluation by standard tests ___

mastery level evaluation ___

SITUATION

It is difficult to talk about new instructional programs without considering costs. In this meeting of the District Curriculum Committee we want to do a rough cost analysis for the newly proposed Career Education Program. The Superintendent has indicated that $10,000 is available for this program. We need to tell him how many classes of students (average size, 32 students) could be served by this program each semester. He has provided us with the following budget information which is used in this District for calculating the annual budget estimates:

Cost Figures for Our School District

65% of any budget allocation goes into direct instructional costs (teachers, textbooks, professional support, clerical help)

35% of any budget goes to our fixed costs or overhead budget (i.e. non-instructional costs)

Of an Instructional Budget Figure:

80% goes to teacher salaries

10% goes to professional support salaries

5% goes to instructional materials (texts, etc.)

5% goes to other (clerical/secretarial, etc.)

The curriculum materials for the proposed Career Education Program cost $10.00 per set.

The average teacher salary is $10,080 for 36 weeks of instruction.

The average professional support personnel salary is $7,920 for 36 weeks of instruction.

Clerical/secretarial help averages $600 per month on a 12-month year.

The Cost Analysis Form (Our District Form 378) must be submitted with our answer to the two questions at the bottom of the Form. Please do whatever calculations (in round numbers) that are necessary to arrive at the answers requested by the Superintendent.

COST ANALYSIS FORM (#378)

1. Tentative Total Allocation.................................. $_____.
(Obtain from Superintendent's Office)

**Proposed Instructional Budget

Teacher Salaries................................ $_____.

Professional Support Salaries...................... $_____.

Materials.................................... $_____.

Other Expenses................................ $_____.

**Proposed Non-instructional Budget Overhead Costs... $_____.

(Note: In order to secure final approval of this Budget the person submitting (or committee) must answer the following two questions:

1. If this Budget is approved, how many sets of new curricular materials will be purchased? _____ sets

2. If this Budget is approved, how many weeks of teacher instructional time will be charged to this budget? _____ weeks

---

Summary

How many classes of students could be served by this program each semester (normal teacher load, 5 classes and 1 prep)?

_____ classes for _____ semester(s)

@ a total cost of $______________.

All results are reported in percentages of the total trial group. PREVIEW results are reported first, followed by EPILOGUE results.

Your Name ______________________

EPILOGUE N = 77

Place a check (✓) on the line provided below opposite each ability or skill that you feel you now have.

I have the ability to:

PRE	POST	
57	75	clearly state my personal basic assumptions about man and learning
16	64	clearly define the critical characteristics of different types of learning goals
26	71	compute rough cost analyses of instructional programs
42	68	classify curricular objectives according to a system such as Bloom's cognitive taxonomy or Krathwohl's affective taxonomy
62	77	specify appropriate classroom procedures given a particular set of cognitive and affective goals

* * * *

Would you recommend the training experience just completed to others?

88% yes ___ no 12% uncertain

Comment: ______________________

Comments reported in body of report

Would you utilize these training materials with a curriculum study of which you were selected leader?

81% yes 2% no 17% uncertain

(1 not applicable included here)

Comment: ______________________

Comments reported in body of report

* * * *

What changes, if any, would you recommend be made in the training unit?

Formative evaluation information reported orally to the developers and incorporated in final changes made.

* * * *

SITUATION

The following areas or dimensions for comparisons among curricula have been suggested by a sub-committee of the District Curriculum Committee. Now it is time for each member of the Committee to vote for those categories of comparisons that are absolutely essential if the Committee is to do a really "expert" job. On this and the next page, please vote by checking (✓) those categories of comparisons that you feel ought to be used to compare different proposed curricula.

SELECTED CATEGORIES OF COMPARISONS

PRE	Categories of comparisons	POST
5	___ number of pages of student self-instructional materials	21
90	___ scope of the content covered	92
42	___ quality of the illustrations and graphics	29
95	___ intended results of instruction	99
48	___ function of the teacher implied in the materials	90
48	___ social, ethnic or sexual bias in the materials	62
83	___ organization of the content	81
87	___ reading difficulty level of the materials	75
68	___ role of the student implied in the materials (passive/active)	86
25	___ availability of teacher manuals	38
53	___ teaching/learning method implied or stated	84
43	___ size of student groups inherent to the materials	79
34	___ presence of additional reading and study lists	48
52	___ special requirements for classroom staffing	87
55	___ grouping of students required by materials (age, ability, etc.)	66
47	___ quality of the writing in the curriculum	44
57	___ necessity for any specialized equipment or hardware	88
62	___ special subject matter competency required of teachers using the materials	88

pre		post
32	___ physical arrangements for use inherent to the materials	73
64	___ cost per student to purchase and maintain these materials	96
83	___ kind of student evaluation built in (exams, no exams, etc.)	90
49	___ reusability of the materials	74
30	___ comparisons of students built in (norms, class comparisons, etc.)	57
27	___ availability of answer manual for any problems or tests	34
60	___ information on how materials worked in classroom trials	64
47	___ quality and durability of the materials	64
40	___ convenience of the materials for student handling/storage	42
88	___ goals and objectives stated for the materials	100
43	___ consultant assistance provided in the "package"	56
38	___ length of the complete curriculum in weeks or semesters	78
68	___ educational philosophy implicit or stated	86
55	___ availability of tests for materials	61

Any comment: ______________________________

Significant comments reported in body of the report

SITUATION

A sub-committee of the District Curriculum Committee has submitted the following set of objectives for a new Spanish program for Grades 7-8.

Spanish Program, Grades 7-8

All of the following objectives should be achieved by our students by the end of the eighth grade:

1. The student should be able to translate correctly any written or oral material described in the Eighth Grade Course of Study for Spanish.
2. When speaking Spanish to others in the class, students should be using correct pronunciation and intonation.
3. Students should be able to demonstrate comprehension of written passages read by the teacher by correctly answering questions (oral and written) dealing with the content read.
4. Each student should have mastered a basic vocabulary of approximately 1000 words of Spanish and be able to define a random sample of those words in Spanish.
5. Students should be able to read a simple story in Spanish and converse about it comfortably in Spanish while demonstrating appreciative understanding of the story read.

* * * *

Given the achievements and behaviors represented most heavily in this set of objectives, please indicate by checking on the opposite page those classroom procedures and conditions which most logically should be followed by teachers in the school district.

First select the most logical choice(s) of teaching/learning method and then proceed to indicate your other choices within the other categories listed.

Take time to carefully study the set of objectives given before marking your choice of teaching/learning methods.

PARTIAL LISTING OF OPTIONS/CHOICES FOR SPANISH INSTRUCTION

PREVIEW/EPILOGUE results in percentages

Teaching/Learning Methods

lecture/demonstration 30/39 programmed instruction 30/38 memorization 32/51
laboratory/practical experience 81/86 discussion/seminar 31/31
research/synthesis 4/0 discovery/inquiry 19/9

Teacher Function

information purveyor 39/62 diagnostician/prescriber 75/66 contractor 19/9
resource person 61/55 fellow learner 9/4 no teacher function 0/0

Student Function

listener/follower 44/71 fellow learner 29/9 self-instructor 34/16
mutual planner/performer 68/56 primary planner/performer 8/1

Materials

standard texts/workbooks 42/65 selected readings 34/36 no materials 0/0
programmed materials 55/45 educational games 29/25 A-V materials 47/52
teacher/student prepared materials 55/30 specialized materials 36/30

Physical Setting

single classroom with fixed furniture 4/10 single classroom, movable furniture 57/79
open space classroom with moveable furniture and walls 40/19
library 25/17 study carrels 43/44 other in-school location 9/1
out of school/industry location 10/0

Equipment (not materials)

small hardware (TV, talking typewriter, projector, recorder) 79/81
large hardware (responder systems with computer tie-in, machines) 27/17
specialized equipment (art, science, cooking, etc.) 12/6
no equipment needs 8/8

Evaluation

teacher evaluation of students 29/42 student self-evaluation 26/18
both teacher/student evaluate 82/65 evaluation by standard tests 25/17
mastery level evaluation 44/40

SITUATION

It is difficult to talk about new instructional programs without considering costs. In this meeting of the District Curriculum Committee we want to do a rough cost analysis for the newly proposed Career Education Program. The Superintendent has indicated that $10,000 is available for this program. We need to tell him how many classes of students (average size, 32 students) could be served by this program each semester. He has provided us with the following budget information which is used in this District for calculating the annual budget estimates:

Cost Figures for Our School District

65% of any budget allocation goes into direct instructional costs (teachers, textbooks, professional support, clerical help)

35% of any budget goes to our fixed costs or overhead budget (i.e. non-instructional costs)

Of an Instructional Budget Figure:

80% goes to teacher salaries

10% goes to professional support salaries

5% goes to instructional materials (texts, etc.)

5% goes to other (clerical/secretarial, etc.)

The curriculum materials for the proposed Career Education Program cost $10.00 per set.

The average teacher salary is $10,080 for 36 weeks of instruction.

The average professional support personnel salary is $7,920 for 36 weeks of instruction.

Clerical/secretarial help averages $600 per month on a 12-month year.

The Cost Analysis Form (Our District Form 378) must be submitted with our answer to the two questions at the bottom of the Form. Please do whatever calculations (in round numbers) that are necessary to arrive at the answers requested by the Superintendent.

COST ANALYSIS FORM (#378)

1. Tentative Total Allocation.................................. $_____.
(Obtain from Superintendent's Office)

**Proposed Instructional Budget

Teacher Salaries.................................. $_____.

Professional Support Salaries........................ $_____.

Materials.. $_____.

Other Expenses..................................... $_____.

**Proposed Non-instructional Budget Overhead Costs... $_____.

(Note: In order to secure final approval of this Budget the person submitting (or committee) must answer the following two questions:

1. If this Budget is approved, how many sets of new curricular materials will be purchased? _____ sets
2. If this Budget is approved, how many weeks of teacher instructional time will be charged to this budget? _____ weeks

Correct or partially correct (indicating understanding of concepts involved)

PREVIEW 27 %
EPILOGUE 61 %

Incorrect or left blank (indicating lack of understanding)

Summary PREVIEW 61 % EPILOGUE 39 %

How many classes of students could be served by this program each semester (normal teacher load, 5 classes and 1 prep)?

_____ classes for _____ semester(s)

@ a total cost of $______________.

Define below the critical characteristics of the four different types of learning goals stressed by the developers of this unit.

	Type	Definition
1.	Pre-Stated Goals 53%	acceptable 36 %
2.	Pre-Stated Goald Indicators 53 %	29 %
3.	Pre-Stated Curricular Objectives 62 %	37 %
4.	Pre-Stated Instructional Objectives 61 %	32 %

* * * *

According to the developers, how does analyzing our basic assumptions about man and learning relate to designing "good" instructional programs?

Some 22 % could give a full or partial answer to this question which is hardly emphasized in Module on Analyzing Basic Assumptions. Others could give reasonable answers to question but not in terms of the developers.

ATTACHMENT 3

Designing Instructional Programs

an Evaluation
by
T. Bentley Edwards

Richard W. Watkins and Gregory Otto asked me to assist in the evaluation of the unit Designing Instructional Programs. To do so, I attended a five session course, Educational Administration 870 Y1 given in Room 234, Educational Building of the California State University of San Francisco, August 5 - 9, 1974.

Eight students attended, three women and five men. Two were man and wife and were from New York, he an elementary principal, and she an elementary teacher. The other two women are employed as elementary teachers in a Los Angeles suburb. One man, employed by a nearby district has been responsible for coordinating work on instructional objectives for his district. Another teaches automobile mechanics in a community college. The other two are practicing school men, with solid experience behind them. All the members of the class are mature educators, holding enlightened opinions about educational issues, and, for the most part, able to articulate the reasons for their beliefs. Furthermore, all were skilled group participants. With these students, the materials were highly successful. That is to say, they generated the course content, stimulated clarifying discussions, and seemed to include sufficient novelty for this group of students, without causing the frustrations that derive from not only carelessly prepared materials with their puzzling inconsistencies, but also from materials that are too ambitious and include more concepts and generalizations than the students can keep in mind as they review their former experiences. To quote one of the men, "I can now adapt a fresh point of view in working with my school board on curriculum revisions."

There are five modules, each contained in a separate pamphlet. Each module is intended for one of the three hour sessions. Members of the class worked away steadily. Some slowness at the start, resulting from extensive discussion, was balanced by faster work during the later sessions when the participants made fewer comments.

At the first session three teams of three played the game, "Chalk Talk." In it, a team chooses a school subject at a particular level and selects a series of appropriate teaching strategies, and desirable settings. Each choice is open to challenge by members of other teams, and success in meeting these challenges determines the score. Complicating side issues are introduced that add to the interest. The game was completed in about three hours and all participants found the game interesting. The single choice from several alternatives required at each step promoted discussion but reduced the correspondence with an actual curriculum committee meeting. However, logic and consistency were used as criteria as often as the personal experience and educational understanding of the players, so that discussion of familiar school questions was more sharply focussed that the shop talk often heard when groups of teachers congregate. Appeal to an excellent,"Glossary," preserved amity on several occasions.

A second module, previewed between sessions as ,"homework", directed teams of three or more to state their assumptions about human nature, a view of the world, social order, and human learning. The materials led them to perform this difficult task remarkably well. Teams were then asked to check the consistency of statements concerning the assumptions implicit in a parable. With the teams' assumptions now explicit, opportunity was now provided to review the choices made during the game "Chalk Talk."

The third module provided a useful categorization of goals going from the general to the specific. The discussion demonstrated sensitivity to the inverse relationship between freedom and specificity, and plumped, wisely in my estimation, for "curricular objectives," rather than for the more specifiable "instructional objectives."

At this point, the "Curriculum Analyser," was introduced, causing the direction of the class to veer sharply from a reasonably tight consideration of human variation to a precise, but restricted viewpoint. Instead of the excitement experienced from refining a program containing elements, at least, of his own thinking, the participant was asked to use tools, admittedly excellent, to examine a program prepared exclusively by someone else. In a sense, the excellent work of stating assumptions was now thrown aside. Use of the Analyser was not emphasized by the coordinator. When he asked for reactions at the beginning of the fourth session there was no immediate response, although later one of the class members said it reminded him of working through a report to the federal government on a Title I project.

The fourth pamphlet, of 166 pages, led us capably through an assessment of curriculum constraints. All participants found this instructive as well as highly interesting. Reinforcement through the programed instruction was most appropriate to the nature of the content.

Pamphlet five each did by himself. It tries valiantly to salvage the work on selection of goals and statements of assumptions. Again, it is less exciting to use the tools of assessment on foreign materials, than on materials which one has shared in producing and which therefore reflect, at least partially, one's own biases and assumptions.

With those materials, the students participating were able to sharpen and increase their curricular understanding to a remarkable extent. In the short space of a single week, I should estimate that they mastered the content of more than a single college course, and this in an almost painless fashion. We have here an excellent base for a fresh start in curriculum instruction, a base organized and planned for additional construction.

Because the unit is intended to be "teacher-proof," the instructor (called a coordinator) purposely remains aloof. This particular instructor, perhaps for a variety of reasons, achieved this goal only partially, and we were allowed glimpses of a friendly, delightful human being, as well as of an informed and profound thinker about educational affairs.

Attachment 4

Review by Dr. James Olivero

In the attached review, Dr. Olivero refers to questions (or criteria) posed by the Program staff. These questions are included on the next two pages.

There are occasional references to specific pages in the copy reviewed by Dr. Olivero, on discussion that is more relevant to possible revisions than to assessment of the unit as a whole. These have been left in the report, rather than risk possible distortion of the report through editorial revision.

FAR WEST LABORATORY FOR EDUCATIONAL
RESEARCH AND DEVELOPMENT
1855 FOLSOM ST., SAN FRANCISCO, CALIFORNIA 94103

Questions Posed for External Reviewers

In your review and report, I would encourage you to respond to the kinds of questions you might ordinarily ask in review of training materials being considered for use by you in your school setting, or in a training session you might be conducting for others. In other words, I am seeking your judgments about the unit, made in a way that you think is most realistic and meaningful to you as a user based on your own past experience with similar kinds of materials. I will, however, list below the questions we would like you to respond to. Needless to say, I would be very discouraged if your questions and ours were not quite similar and about equally comprehensive; but if they aren't, please feel free to deal with your questions. My questions follow:

1. Do the goals and objectives as stated in the unit, or as inferred by you from the content, address an important need for school staff, which if met would result in improving the effectiveness with which school staff perform in their jobs?

2. Recognizing that there will be some relatively minor revisions made before the unit is released, does the unit in its present form and content seem to be well directed to the stated goals and objectives?

3. The following questions are more specific with respect to the content of each of the five modules. While they might be answered "yes" or "no," I hope you might amplify on your answers.

Module 1: Does the process of program design to which participants are introduced in this module appear to be appropriate to the design task, and if appropriate, does it seem comprehensive enough? Will the use of the game as the vehicle for introducing participants to the process be seen by them to be relevant to the task of designing instructional programs?

Module 2: Is the process of analyzing assumptions important enough in the solution of problems of designing and implementing instructional programs, that this module should be retained, if time limitations require elimination of some of the content of the unit? Do the simulated devices used in this module assist in the achievement of the objectives for the module?

TELEPHONE (415) 565-3000

Module 3: Does the use of Bloom and Krathwohl's Taxonomy appear to be useful as a way of classifying goals and objectives, and does the process of relating goals and objectives to instructional program characteristics seem likely to improve the capability of designing or choosing an instructional program? Does the method of presentation seem effective?

Module 4: Do the devices presented for analyzing resources and constraints appear likely to be useful to school staff in pursuing such an analysis? Do the simulations used to assist staff in using the devices seem good?

Module 5: Is the Curriculum Analyzer a tool that school staff will find useful in their work of designing or choosing instructional programs? If so, what are some possible uses for it? Is the content of Module 5 adequate for learning how to use the Analyzer, and for identifying needs for its use?

Glossary: Are the definitions presented in the Glossary accurate, and consistent with accepted knowledgeable use of the terms? Recognizing that in some cases commonly used terms have to be defined in specific ways for a given training situation, even though they have a variety of definitions in daily usage, are there definitions in the Glossary that you believe could be quite incorrect if used in other situations?

4. Is there additional information or materials that you believe would simplify or improve the work that the unit Coordinator would have to do? Are there situations or kinds of Coordinators where you might predict the unit would not work, and if so, can you describe the limits on use? (We know that the unit can be used effectively by non-Laboratory Coordinators, because it has been done. What we don't know, and have neither time nor money to determine, are the limits on effective use of the unit.)

5. If the unit were to be used, but the staff could not devote the full fifteen hours judged to be necessary, what would be your recommendations for sections to be eliminated, stated approximately in priority order? (What could be eliminated first, what second, and so on.)

6. Do you believe that this unit would be used in school staff training, if it were available at a cost of $12-18 per participant, plus a charge of $20.00 for Coordinator's Materials?

7. If a school district sought your recommendation as a paid consultant for a staff training program, and you were satisfied that staff was clear on what they wanted to accomplish in a new program, would you recommend the use of this unit? What other training procedures and materials might you consider as alternatives to this one? How would you rank this unit relative to these other materials?

PROGRAM REVIEW

"DESIGNING INSTRUCTIONAL PROGRAMS"

Prepared for Richard Watkins	Prepared by James L. Olivero
Educational Management Programs	Nueva Learning Center
Fall, 1974	Hillsborough, California

This program review has been prepared using the criteria determined by Educational Management Program Director Richard Watkins. Other criteria used by the reviewer included those of relevancy, feasibility and utility (operational definitions of these terms will be supplied later in the report). A "miscellaneous" section is included in the report covering other thoughts which occurred to the reader but which did not match up with the other criteria.

The "Designing Instructional Programs" publication, "Curriculum Analyzer," was used to summarize and condense certain features of the curriculum; and the procedure outlined on page IX of the publication was followed to arrive at the rating scores.

Each of the training booklets was returned with the reviewer's comments. The booklets also contained various comments.

The first section of the report addresses the questions raised by the representative from the Far West Laboratory; the second section, in addition to those above, addresses criteria prepared by the reviewer; and the third section contains other comments which seemed pertinent.

INTRODUCTION

The review of the "Designing Instructional Programs" materials included an analysis of five module packets, a glossary of terms booklet and a document entitled "Curriculum Analyzer."

The associated training materials, i.e., "Determining Instructional Purposes" and "Evaluation for Program Improvement" were not considered when the "Designing Instructional Programs" modules were reviewed. The reviewer is biased, positively, toward the use of training materials to assist with the many problems faced by educators. Most educators need new attitudes, skills, knowledge. These biases understandably influenced the analysis.

MODULE I AND GLOSSARY

The Goals and objectives of the first module are stated clearly, and the game appears to be a useful tool to accomplish the desired ends. While I have not played the game, I have talked with people who have, and they have agreed that the tool is adequate. Clearly, the many options mentioned in the game, as the teams progress up the ladder, should be beneficial to the users. Because of the limited choices, however, the teams may not consider all of the possible options.

The game illustrates nicely how the complex parts fit into a whole. Even in the mini-version of program designing, the user should be able to see how the decisions on one rung of the ladder have a bearing on subsequent operations. The game could be very helpful in giving the participants a common frame of reference to get at their difficult task.

To some individuals, the game will probably appear to be irrelevant to the task of designing instructional programs for two reasons: (1) Because it is a game (a part of the description indicates the simulation is less than "real life," page 17), and (2) because the directions do not communicate what is really supposed to happen in the game (at least, they do not communicate this to me). For this latter reason, it appears that a trained consultant would need to accompany the package. If the game is expected to stand by itself, some additional developmental work is necessary.

The only real concern I have about the game is that which I have for all program designing. Essentially, that concern evolves around the tendency to focus on solutions to problems "of the past." That is, I am very concerned that we might be developing an extremely important and powerful device which will assist people to do well what they should not be doing anyway. Perhaps the assumptions module helps to cut back the danger on this.

The "rung" of the ladder which I thought was missing from the options had to do with in-service education for those expected to implement the program. Perhaps this was taken for granted. I believe, however, that we have learned enough about new curricula to know they cannot be used without teachers and administrators learning new skills, attitudes and knowledge.

As a design consideration, I would suggest that each participant in the game have a set of the rules, as passing a single book around to all players would seem to be too time-consuming. Frankly, I found that keeping track of twenty-eight rules was more than I could handle by simply reading rather than learning the rules by playing the game.

Someplace in the first module booklet, I believe it would be a good idea to include some sort of flow-chart picture for the reader. The flow-chart would show how the modules were to fit together. Without this crutch it is somewhat difficult to follow the step-by-step progression through the total package.

Obviously, the "Glossary" is an important part of the game. Perhaps some mention of it should be made early so the players are able to glance through it. This would enable them to consider definitions of terms at the same time they become familiar with the game board and the game rules. It would be interesting to observe a person introducing the game to see how one individual approach would match what is written in the booklet.

Probably some additional introductory work in the booklet is necessary. I would guess that on a random sample of ten principals, only three would be able to introduce the game as it is now written. For the tool to obtain the potential it suggests, some work is needed in this area.

Understandably, if the game is to be effective as a tool, participants will need to understand the definitions of terms in the "Glossary." Perhaps a pre-test should be given to determine the "entry level" of the learner, enabling him to skip what he already knows. (Parenthetically, I do a workshop called "Innovations in Education" and always administer a pre-test. Educators are amazingly unknowing!) The definitions in the "Glossary" are those generally used (I have made notes in the booklet where other terms are also applicable).

I would try to reinforce the definitions in the "Glossary" with a slide-tape presentation offering visuals of students, teachers and so forth to illustrate the definition/concept. (I happen to have a slide-tape that gets at this idea, if you would care to see it.) Undoubtedly, the game will be only as powerful as the concepts understood by the players. I could be wrong about the "entry level" of educators, but just try a sample of fifteen to see how many know the differences between wet and dry carrels, and this might give some feeling for what little is really known. Perhaps you have already done the "entry level" assessment, and in this case, disregard the comments.

Two difficulties of the game become apparent when one thinks of the rules and at the same time thinks of the forced choice of the terms in the "Glossary." For example, the term "Logical consistency" is used frequently, and there is no place I can find this defined. This, then, leaves "logical consistency" up to the vote of the players; and ignorance, even after discussion, could mean that specific choices were mandated; that is, the designer may have been accurate in the first place but simply got outvoted. While not knowing your definition for "logical consistency," it seems to me this voting procedure could be logically inconsistent.

In addition, because of the forced choice (only one acceptable answer) the team of players must make only one response. If one looks, for example, at the "Intended Result of Instruction" on page 3, there is a good possibility that at least two intended results will, with logical consistency, be chosen, particularly at a time when affective skills seem to be gaining much greater attention in our schools. I can understand the forced-choice approach, but it may turn some people off to the point that they become disenchanted with the tool.

Finally, there are a number of decision-making steps called for in the game. I would hypothesize that while decisions can be made by people in teams of two to five members suggested for the game, the problem becomes more acute as staff members increase: for example, Marina High School in Huntington Beach, California, has 146 staff members. The key issue here is not necessarily one of design; it is one of problem-solving and communication. That is, people cannot get around to the design considerations until they can do the interpersonal communication with each other. Any considerations anyplace for helping people learn problem-solving and communication skills?

In summary, I believe the tool is worthwhile and potentially very useful. In my opinion, it is not yet fully developed if it is to stand by itself. Please see the last section of this report along with comments in the module booklet for other thoughts.

MODULE II

By all means, Module II should be retained. One of the biggest voids in program designing has to do with the inconsistencies between philosophic assumptions and the actual activities carried out in the classroom. The material used to accomplish the objectives for Module II is excellent, from my point of view. (Frankly, if something in the total program had to be cut, I would be more inclined to cut the game.) Since each module is designed to accomplish different objectives, I really do not see how either could be cut and still maintain the integrity of the program. The second module is especially well done. For example, the objectives are clear, the activities appear to help participants achieve the objectives, the strategies for learning include independent study, discussion, and problem-solving. Additionally, part of the program is designed to give the user specific feedback on whether or not anticipated results have been achieved.

At first I was somewhat skeptical of the four parables (and therein lies a little problem, i.e., getting the user to proceed past initial negative reactions so he can decide whether he does or does not accept the simulation exercises as viable). I suspect the personality of the Coordinator will make considerable difference here; if the participants accept the Coordinator as knowledgable, the parables will be accepted. If the users have little respect for the Coordinator, they will likely reject the "elementary school" parables (win a few...lose a few!).

In my estimation there are two voids in the module: (1) techniques to learn about decision-making and problem-solving and (2) techniques to improve interpersonal communication on the part of the team members. To omit these or to take them for granted is naive. Perhaps the "Handbook" for the Coordinator illustrates strategies for getting at these two factors. If not, I would recommend same. (Incidentally, up to this juncture, I really have not figured out who the Coordinator is, what training he/she has had, or whether or not there is a specific handbook or set of procedures for this person to follow. I will focus on this later, but I wanted to bring it up at this point because Module II frequently mentions the Coordinator.)

I am especially concerned about skills necessary to get at a consensus; there are certain activities to help people learn how to do this, and I believe the package would be enhanced if the Coordinator knew how to do this and built in the option.

Most of the terms (jargon) used in the module should be clear to the participants. I mention this only because it is another way to turn people off.

I believe the approach followed for getting at assumptions is good. Frankly, it seems to me that before we can get at values for "others," one must have in mind what values one holds for oneself. It is because of this that if I were doing the program, I would have started with some personal values clarification rather than the concern for "man." Only by knowing who I am, my values (real vs. stated), my concerns for changing et cetera am I able to consider the more global issue. Perhaps this is a small detail, but at least it is worth considering.

I believe the interpretations at the conclusion of the "Suggested Response" section beginning on page 57 are very helpful. They help to establish closure on the important objectives in the module, giving the reader comfort in knowing he/she is tuned in to the task before going on to the next section. This portion is really quite well done. Also I liked the added flexibility mentioned at the bottom of page 63. This is an improvement over the game, where there is a forced choice of options.

The "Prepared Instructional Program Outline" beginning on page 65 is outstanding. There may be a few options not included, although they do not, immediately, come to my mind. Certainly, the device aids the individual (or team) as the complexity of the issues begins to evolve. Clearly, the systematic approach should be helpful; unfortunately, there is too often the problem that new designers fail to consider all the potential bugs in the system until they are too far into the ball game and the tasks become overwhelming. The outline helps to avoid this matter.

In conclusion, I am very excited about the "Analyzing Basic Assumptions" module. It is quite well done.

MODULE III

I have considerable difficulty with Module III. Frankly, I would either reduce it considerably or eliminate it altogether. Undoubtedly, some of the points made in the module are quite worthwhile. With these given, let me suggest thoughts for possible changes to the material.

First, objectives should not be written until the entry level of the learner is considered. One of the problems with Popham's bank of educational objectives at UCLA (and he is one of the first to admit this) is the problem of people writing in to use the objectives and, in fact, incorporating them into the curriculum without giving thought to actual student needs. I do not believe the statement in the preface that "participants should assume that a 'needs assessment' of educational values has already bben conducted" adequately provides the caution sign. Some section needs to be developed on diagnosing student levels of readiness, whether the students are adults or children.

New topic: While I will mention this point further at the close of this report, I would like to suggest here again that each booklet contain a chart early in the pages which illustrates how the particular module fits into the package. This gives the user a sense of from whence he/she has come and where the path is leading. It is difficult to get the Gestalt, even after playing the game, without this road map.

If individuals agree that the objectives for the module are relevant, the content of the module certainly is written in such a way that the user has a chance for meeting the objectives. In fact, there may even be an overkill in one section. For example, if the user arrives at the answers to the questions on the "Goal Answer Tally Sheet," page 43, then the user is expected to continue, essentially, with the same process on the next pages. I am not certain this is necessary. It seems to me participants may learn more about the penguins than they really want to know. Once people have demonstrated competency, there is no strong argument to have them continue the same thing.

In this same realm, I am concerned that the taxonomy exercises may be more academic than practical. If the users were in a course at some university, the disecting and breaking-down-to-the-lowest-common-denominator activity might be worthwhile. I suspect, however, that curriculum designers are more concerned about getting on with the task than engaging in mental exercises.

Even if the above position is not accepted philosophically, I would like to fire one more bit of ammunition which may be worth thinking about: While it seems we might be helpful by breaking behaviors down into cognitive and affective areas, I would argue that no action is totally affective or cognitive. Indeed, we neither learn without feeling nor feel without learning. I see no place in the module where this point is made. Understandably, I believe you should do this.

Another philosophical concern I have is mentioned in page 19, i.e., getting parents and other community members involved. I believe it is too late at this juncture to have them participate; rather, they should begin participating during the assumptions modules. If the goals and objectives are to emerge from the assumptions (philosophy), then parents and children must get into the act earlier.

I doubt that a real issue needs to be made about the sophistication of goals. Rather than work so hard on this issue, I believe it would be more helpful to accept global goal statements, but then to ask the question, "What evidence is acceptable that the goal/objective has been achieved?" This seems to be a far more reasonable issue, as it presumes that teachers are aware of entry levels of individual children. Too often when performance objectives are written, people see the means as an end and fail to really identify those evidences that indicate student growth. I am more concerned that people demonstrate competency than illustrate they have mastered the mechanics of writing objectives.

Finally, the four items on page 49 seem somewhat esoteric; for example, what does "...logically developed and internally consistent" mean? How does one know when this has been achieved? The statement "...each class should be purely descriptive and not imply a system of hierarchy" does not really say anything to me. Perhaps it does to other people.

By the way, in spite of all my criticism with this module, the chart of page 56 is quite good. I expect that some kinds of tools could be built around the theme of the chart because it shows how to get at the "evidence" issue.

You may be interested in additional comments in the booklet.

MODULE IV

The devices presented for analyzing resources and constraints appear likely to be useful to school staff in pursuing such an analysis, presuming they want or feel the need for such an analysis. Frankly, having worked with a variety of curriculum development groups, I have not found them especially excited about or interested in making a direct, frontal analysis of the political scene; rather, they have used such devices as the force-field analysis, problem-solving procedure to identify constraints and possible ways for overcoming same.

It seems to me one major void omitted from consideration has to do with the "teacher training" element. We know enough from history to know that few, if any, programs can be installed in schools without appropriate teacher training. This item is omitted both from the discussion in the preface as well as the "Preliminary Assessment Forms." At the very least, I would add a paragraph indicating this factor has not been included in the module even though in "real life" attention must be given to the matter. On page 4 there is a list of items which is useful for doing pre-assessment. This is one of the points where I believe the teacher-training factor should be mentioned.

Even if the procedures as outlined in the exercise were followed, I have not been very many places where teachers had the prerogative to trade off the kinds of resources mentioned in the exercise. Building up this kind of false hope might be devastating in the real-life situation. At least some word of caution should be made about this point!

The objectives on page 6 are well stated, and having participated in the exercises, I believe the content teaches what the participant is supposed to learn. Again, I believe a chart would be helpful here to show how this section fits into the total scheme of things (page 7). One good part of the package is the help it gives to participants to learn the common vocabulary. This helps them use the same terms as others when discussing curriculum design facets.

The exercise included in the section on pages 29 through 43 does not seem to be particularly useful. This judgment reflects my own value system, but I do not believe busy educators have the luxury to explore the esoteric and minute features of each part of the task. Rather than being overly specific, most people are concerned about "gettin' on with it'" This is similar to my bias about the taxonomies discussed earlier, i.e., interesting but not especially useful.

By the way, one additional point on the "Preliminary Assessment Form" seems pertinent. Parts 3a and 3b illustrate a point called person-periods. I have never heard of this term, and I did not see it defined. Does person-period refer to teacher-period? If this is the case, why not explain it somewhere?

A couple of places in the exercise on "trade-offs" the suggestion was implied that money could be borrowed from teacher salaries. I doubt if in real life this little matter works out this neatly. That is, with the single-salary schedule, the money to be spent on the teacher is a function of longevity of the teacher and not a matter of cost-benefit or other methods to redeploy existing scarce resources. There is always the argument that just understanding the redeployment concept is worth knowing, and that may have been the position the authors were taking when the module was developed. I would certainly support this later position.

I have some additional philosophical concerns about the editorializing beginning on page 122. For example, at the top of the page there is a point made that easy and open schools lack structure. In fact, I believe you will find that the "open" schools (not necessarily the free schools) require more subtle structure than the more traditional schools. Further in the next paragraph there is a suggestion that communication helps to avoid distortions at either end of the philosophical spectrum. I would argue that this suggests a single rather than pluralistic philosophy. For me, it seems the latter concept should be supported if one really needs to editorialize in this section. Finally, there is a discussion near the bottom of the page about report cards that is, perhaps, less than accurate. Many changes have been made in the student-parent reporting systems in the last ten years, and I believe the example offered is more atypical than typical. This part of the write-up makes me wonder whether the author has been out in the schools recently to know what things are happening or whether the author is writing from an ivory-tower position. (I realize what I have said here is reasonably caustic, but I cannot think of a faster way to turn off an audience than to lose creditability. The writing comes close to doing this to me, and I believe the package is potentially too helpful to purposely cause people to turn off.

On page 142 there is an analysis made of a certain political situation as people perceive it to exist. I would offer the suggestion that one could take the same basic data and have them perceived differently by different people. Ask four different people their opinions about the political structure of a school system, and you invariably find four different perceptions, irrespective of what the "true" picture might be. Even when a teacher knows the political structure, there is little, if anything, a single individual can do about the situation. Therefore, I am not certain what the exercises do to enhance the package. Clearly, people ought to understand that political constraints exist. This might be handled in a paragraph.

In summary, while many parts of the "Assessing Resources and Constraints" module are helpful, I would recommend that the total package be reduced in magnitude about 50 per cent. You may be interested in other comments contained in the booklet.

MODULE V and CURRICULUM ANALYZER

Generally speaking, I believe Module V and especially the "Curriculum Analyzer" will be quite useful to school personnel. It helps to synthesize the earlier elements of the program into an integrated whole. It is a very nice piece of work; as a matter of fact, the last section with just a little embellishment could probably serve as the entire package, including the one on financial constraints. If I were using the program, I am certain I would focus most of the attention of the learners on the contents of Module II and Module V.

Let me get more specific with the critique: The package is probably useful for teachers, but it seems to me it could also be helpful for members of the community who want to get into the curriculum selection process but do not have the skills required. Do you purposely want to ignore the "community" issue?

Certainly the objectives are well stated, as usual, and the "Curriculum Analyzer" can help a wide array of audiences address pertinent curriculum questions in a systematic way. I do have some qualms with one of the objectives. The first objective on page 3 suggests that the commercially-prepared descriptive brochures are useful for analyzing curriculum offerings. Experience leads me to believe that this is one of the poorest sources. When those descriptions are prepared by the publisher, the propaganda is sometimes less than accurate. Perhaps some distinction should be made about the appropriate place to locate information which pulls together ideas about curricula. (Note should also be made that not all curriculum summaries are organized in a fashion such as that produced by the Far West Lab or by certain other agencies.) Perhaps the first screening could be accomplished without having hands-on experience; subsequent efforts might be completed with actual materials.

I believe it would be helpful, too, at this point to tell the users that the curriculum analyzer either can or cannot be used to evaluate curriculum materials prepared by other classroom teachers. Most teachers who have been around awhile and who have some moxy have figured out a variety of ways to put together contributions from alternative sources, making a short-of eclectic smorgasborg which turns out pretty well. I can think of only two or three source books which give any note at all that more than one approach is possible...and that is what the publisher is trying to sell!

I was happy to see in this section some concern given to the idea of in-service education. Either the consideration was omitted in other modules or it was so casually brought to light that it was not noticed. I do believe it is an important matter that needs attention and believe some thought ought to be given to the issue in earlier modules, i.e., the financial section.

I thought the selection of the two different types of reading programs was quite good. It gave people a very different option as to what might be selected. (I do not know whether the EDL entry has been used at the third-grade level, but I doubt it; and unless they have something quite new, there is no way I can imagine it as being useful as a third-level reading program. I doubt that many other people would think so either!)

The one possible difficulty with the selection of the EDL program has to do, again, with the credibility of the information put out by the publisher. I realize the lab staff members prepared the document that lists EDL as a reading program, but I doubt that they took the time to actually test the program at the third-grade level and simply accepted the comments presented by the publisher. The British concept is useful not only as an option to EDL but also because it gives most public school people an opportunity to consider the political climate, as the program suggests it is legitimate to have children as non-readers as late as the junior schools. There are probably few places in the United States at the present time that would accept this concept, so if the two different programs were considered together, all of the biases might point, educationally and philosophically, toward the British concept; but the political climate might negate this. In spite of these comments, I would stick with the programs included.

The optional activities suggested at the conclusion of the module look as if they would be especially useful, particularly if people were unable to make up their minds about which program to accept. I am, however, not certain how the developer arrived at the value "7" as the indicator of what to apply to the different scales. You might want to mention someplace if this is just an arbitrary value.

Let me move on to the "Curriculum Analyzer." As far as I can tell, there are no omissions in the curriculum characteristics mentioned. Many guides such as this frequently omit two categories, one has to do with the amount of preparation time necessary for a teacher to use curricula and the other has to do with the special skills (including in-service education) needed. I was pleasantly surprised to find that both of these areas were included in the analyzer.

As you can see, although I did not have a "standard" curriculum against which to assess the different modules that have been put together in the training package, I did rate the lab program 127 out of a possible score of 196. Actually, I see the 196 score as being important only if one accepts the value of "7" as relevant for each characteristic....and I do not. Perhaps a better (or at least a different) way to use the tool is to take a look at the difference between the rating score and the weight that a person gives each of the characteristics. If one's expectations are not very high for a given characteristic, then the difference does not become all that important. There were times, for example, when I rated an item higher than the weight value given later. For those where the weighted value was higher than the rated value, I would have cause for concern, and this concern is probably more realistic than the difference between 127 and 196.

Please note page 17 in Module V. I really believe this is an important idea, but I saw nowhere in the design of the package where this was possible. I know there is much to do with teachers and administrators, but if alternatives (different philosophies) are going to be realistic, parents need to learn the skills too. Perhaps when we take some of the hocus-pocus out of education, we will have greater strength with the general public.

The "Curriculum Analyzer," I believe, has great potential for this. By the way, I believe the suggestions indicated that if the characteristic was rated "0," then it should not be multiplied by a weighted value. It seems to me that there is always a good possibility that something might be rated "0" and be very important to the potential user. Perhaps the rating scale should go from -1 to +7 or some other such arrangement, to show that an item might have a high weight but low or zero rating. I can even envision that what is available may be worse than having no information at all, potentially a negative value. The current scale does not really permit this.

As can be seen from the assessment, there is a good possibility that I would use the materials if I had the opportunity, but not because the congruence between the potential point value and the value I came up with was particularly good. The selection would be made because of the relative few cases in which the value I applied in my own judgment was higher than what I believed the modules had to offer.

There are more comments for review contained in the booklets.

OTHER RESPONSES

The following responses are offered in direct answer to the questions enumerated in the letter dated August 29, 1974, excluding question 3, which I believe has already been answered.

1. The goals and objectives definitely address an important need for school people as well as members of the community who are more and more being called upon to participate in educational decision-making. One of the reasons I believe the package is good is that I am not familiar with anything else as complete as the materials which have developed. Certainly, there are two arguments related to this point: (1) The package may contain more about some aspects than people really want to know, and on the other hand, (2) people need to be willing to invest some time in learning how to do a job correctly when the fiscal and human stakes are so high. I would opt for the latter position, although there are a couple of places in the materials where anyone could debate the relevancy of the content; but this same argument can be made on any number of curricular programs. What turns out to be one person'e trivia is often top priority for another person; hence, the reason to leave the context fairly integrated.

If I had the materials available to me, I believe I could use all parts with the participants, except the game, and not feel that the experience would be embarrassing to them or to me. Naturally, if I were to use the materials, I would attempt to develop some additional support materials to augment the modules; I have indicated these either in the preceding paragraphs or in the columns in the module booklets.

2. In short, there is no question in my mind that an individual willing to invest at least some small time and thought (20 hours, I guess!) could achieve the objectives as stated in the materials. There are some areas that, hopefully, will be modified, but even if it were to stand as is, the product could be useful in almost any school in any district, presuming two things: (1) The leader in the district or school is knowledgable about the package and can convince others that the process will get them where they ought to be going, and (2) the interpersonal communication between the people involved in positive to the point that decisions can be made. What I am trying to say is the module package is essential but not sufficient to pull of the desired end results.

Moreover, I can see no easy way of dealing with this latter problem, but it would seem reasonable for an outside Coordinator to be aware of the potential difficulty and then to be able to diagnose and treat the matter relatively soon, should the situation arise. If I were a Coordinator, I would start off with a few warm-up communication exercises to help individuals get about their business.

3. Already completed.

4. The only major modifications I would make are two:

a. A handbook for the Coordinator. I had the impression that there must be one someplace, but I did not have one when reading the other materials. I am not certain what plans the unit coordinator has for training other people to use the package. This is more of a dissemination issue, and I will not delve further into it at this point except to say if you want to have quality control, it would seem wise to establish some sort of minimum competency levels for the persons serving as Coordinators.

If you do not have fiscal resources to determine minimal performance levels of Coordinators, you must use your own professional judgment to check out criteria. When you disseminate materials, you may want to indicate someplace that for a small fee, you will also offer a consultant from a list of approved people who can make certain that those using the materials reach expected achievement outcomes.

5. Rather than eliminating sections, it seems to me you should find ways to reduce the time investment of personnel by permitting them to move ahead when expectations have been met. There are a few places in the materials where there is overkill, and this is unnecessary. Some people with reasonable experience will tune out when they believe they are investing their time and talent on something they already know. (By the way, there are a lot of people who think they know things but really do not, and about the only way to convince these people is via some sort of

demonstrable test...and even then a lively debate is often possible.) I noticed no such proficiency options in the materials.

If I absolutely had to prioritize the list of modules, I would first keep the fifth module and "Curriculum Analyzer." Then I would keep Module II. Next would come Module III, then IV, and last would be Module I, the game. Perhaps I would feel more positive about the game if I were to participate in playing it. Others have told me it is fun. From a sales point of view, it might offer just the right gimmick (using the term loosely) to help make the package "go."

6. I do believe the price tag you have put on the package is reasonable. If a school district is going to make the kinds of serious decisions called for, they should expect to invest initial money into people and materials. With the Federal funds available through different titles, in California through 3.3 legislation, et cetera, there seems to be a realization that if programs are to work, teachers need the in-service to do them well. The training package, it can be argued, is a staff development option. Even if teachers in a given district were not involved in the selection of curricular materials (and they usually are), there is plenty of meat in the modules for all educators, if they will take the time to consider what is available.

Colleges and universities are often slow to change, but it would seem that any curriculum and instruction people and/or the consultants at the California County Offices of Education would be logical agents to implement the program. Incidentally, the regional education service centers in Texas and the B.O.C.E.S. in New York are always looking for packages such as this. Texas, indeed, now has a law which requires that teachers have ten days per year of staff development.

7. I definitely would recommend use of the materials and would use them myself if they were available. As I have indicated earlier, I have a few different ways to do the "assumptions" package and believe the personal values and institutional values tools I use are more powerful than the approach taken in Module II, but this probably is my own bias. In any case, I certainly agree that the analysis of the philosophy of the school must be the first step, and there are many ways to do this.

Moreover, we (Nueva) would be willing to help disseminate the modules through our modest Learning Center, although if I were you, I would consider PDK and ACSA for potential dissemination in that order. You may have better contacts than I, but I would start with Keith Rose and Art Thayer, respectively.

The only other materials and procedures I would use, as an alternative to what has been put together, are those I have developed myself; unfortunately, because I have never packaged the materials, they are usually put into and taken out of a workshop depending upon many factors that are not related to very much of anything, except me. Some of the arguments for both choices are obvious. Undoubtedly, the program is well done... get it out to the people who can use it.

PERSONAL CRITERIA

When I look at different curricula, there are usually four umbrella areas considered: Aims, Content, Methods, Evaluation. The specifics of these are quite well contained in the "Curriculum Analyzer," although they are called "curriculum characteristics." I saw no major weaknesses in the materials in any of the four umbrella areas. What suggestions I would make have been conveyed earlier.

What I would like to do in summary, then, is to offer some thoughts about the program which came to me as the modules were reviewed. These are rather aside comments and are offered just for your own use.

1. You might want to say a few more words in the introduction about the authors, especially those parts which lend creditability to the work they have been doing in the modules. With all due respect intended, I have not heard of any of the people other than Otto. When Glenn Nimnicht did things at the Lab, people knew they were going to be great because they had his name on them. Too few people in the field think highly of labs, and I would do anything I could to let them know there are good people employed there trying to make things better for kids and

educators.

2. If something is not going to be done with the bibliography (and because it is not annotated), why not just leave it out? Again, this cuts down the size of the package and makes every page count.

3. In addition to the two items I mentioned earlier in the report, I would also give serious thought to the possibility of including concensus-making and/or problem-solving techniques in the package. These are not all that hard to do; if the Coordinator receives special training, you may want to build the techniques into the handbook he/she uses.

4. Overall, I thought the writing was well done. Someone had made a careful effort to avoid the overuse of jargon. (I took the liberty of marking a couple of places where it seemed the writing was unclear.)

5. The materials as they are designed accomplish the goals and objectives. I must say, however, the format for the program is anything but exciting. I do not know who is working on this part, but this matter could definitely use some attention. perhaps a systems chart would be beneficial, or even some jazzy cartoon characters. Enough said; I expect something is already

being done with this.

6. When and if the program is completed, I would try to do it in such a way that you have two major components: (1) those items of written materials and audio-visual materials that are nonconsumable and (2) those items that are consumable. People in the field could continue to order those parts which are used. I believe this can all be done and still keep the packaging costs within $50. This is not an unreasonable price to ask for what the people are getting.

IN RETROSPECT

I enjoyed the opportunity of reading and reviewing the curriculum design materials. My interest, when critiquing the documents, was to be constructively critical. For certain, some reviewers might suggest throwing out the entire project; my biases are much different. While the package completed to date is less than perfect, it appears to offer reasonable help to people in the field who desperately need it.

It would be possible to continue further development of the package. This is a matter which the Lab will need to decide (as any lab must), based upon the availability of scarse resources. From my point of view, the Model T is ready and should be getting out where it can be used.

Possibly there may be some areas of the rport which are unclear; should this be the case, please drop me a line or call on the phone. Should it be helpful for me to explain in person any of the points I have made in writing, please let me know, as arrangements can be made for this.